1	SCOTT+SCOTT ATTORNEYS AT LAW LLP ALEX M. OUTWATER (CA 259062) 600 W. Broadway, Suite 3300				
2					
3	San Diego, CA 92101 Telephone: (619) 233-4565				
4	aoutwater@scott-scott.com				
5	Attorneys for Plaintiff Bucks County Employees' Retirement System				
6	[Additional Counsel on Signature Page.]				
7					
8	UNITED STATES DISTRICT COURT				
9	NORTHERN DISTRICT OF CALIFORNIA SAN JOSE DIVISION				
10	DUCKE COLDIEN ENDLONEES	G. N			
11	BUCKS COUNTY EMPLOYEES' RETIREMENT SYSTEM, on Behalf of Itself and	Case No.			
12	Derivatively on Behalf of ALPHABET, Inc.,	VERIFIED SHAREHOLDER DERIVATIVE ACTION COMPLAINT			
13	Plaintiff,	AND JURY DEMAND			
14	V.	DEMAND FOR JURY TRIAL			
15	LARRY PAGE, SERGEY BRIN, JOHN L. HENNESSY, L. JOHN DOERR, K. RAM				
16	SHRIRAM, ANN MATHER, ALAN R. MULALLY, ROGER W. FERGUSON, JR.,				
17	ROBIN L. WASHINGTON, FRANCES H. ARNOLD, SUNDAR PICHAI, and ERIC SCHMIDT,				
18	Defendants,				
19	-and-				
20	ALPHABET, Inc.,				
21	Nominal Defendant.				
22	Trommar Berendanc.				
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COMPLAINT

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- 1. Plaintiff, Bucks County Employees' Retirement System ("Bucks County" or "Plaintiff"), brings this action derivatively on behalf of Nominal Defendant Alphabet, Inc. ("Nominal Defendant" or "Alphabet" or the "Company"), against former and current directors and officers of the Company, for breaches of fiduciary duty to the harm of the Company.
- 2. Google, Inc., the predecessor to, and main subsidiary of, Alphabet, has engaged in a decades-long course of anticompetitive conduct that violates the antitrust laws. This misconduct includes: (1) leveraging its dominant position in general search to expand to other markets and muscle out opponents in vertical search; (2) using its dominance in mobile operating systems via Android to then create and maintain a monopolistic applications ("apps") store charging monopolistic prices; (3) extracting high fees from publishers and advertisers through its ownership of key players throughout the digital ad stack; (4) using acquisitions, tying, and bundling to dominate the navigation market; and (5) using acquisitions to kill nascent competitors and gain their market share.
- 3. Google LLC ("Google") has long faced these antitrust problems and has come under increasing regulatory scrutiny as a result. This regulatory scrutiny has culminated in at least four pending government lawsuits, with a fifth by the U.S. Department of Justice ("DOJ") anticipated for later this year, covering a wide range of misconduct, as well as private lawsuits, which are so numerous that they have partially been consolidated into two multi-district litigations ("MDLs") in the Northern District of California and the Southern District of New York. The regulatory scrutiny also has led to continuing Congressional hearings, the issuance of a more than 400-page report by the House Judiciary Committee's Majority Staff (the "House Report"), as well as legislative proposals that could lead to breaking up the Company.
- 4. The Officer Defendants have actively pursued violations of antitrust law, including through conspiring with competitors, as well as approving, condoning, and directing strategies and actions that violate the antitrust laws. The Director Defendants are similarly liable because they

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failed to conduct direct oversight even though they were informed of the Company's increasing antitrust liabilities, first in Europe and now in the United States.

5. As a result of the Individual Defendants' misconduct, the Company is facing potentially multi-billion-dollar antitrust liability and the risk of being broken up, and in addition, is currently spending millions of dollars in defending against antitrust actions and investigations. Plaintiff brings this action to recover the damages incurred by Individual Defendants on behalf of the Company.

II. PARTIES

A. Plaintiff

6. Plaintiff Bucks County is, and at all times relevant was, a resident of the Commonwealth of Pennsylvania, and has held Alphabet (or its predecessor, Google) stock continuously since 2003.

B. Defendants

- 7. Defendant Larry Page ("Page") is the co-founder of Google and a director of the Board of either Google or Alphabet since 1998. Page was the President of Products at Google from 2001 to 2011, the Chief Executive Officer ("CEO") of Google from 1998 to 2001 and again from 2011 to 2015, the Chief Financial Officer ("CFO") of Google from 1998 to 2002, and then CEO of Alphabet from October 2015 to 2019.
- 8. Defendant Sergey Brin ("Brin") is the co-founder of Google and a director of the Board since 1998. Brin was the President of Google from 2011 to 2015 and of Alphabet from 2015 to 2019, and before then, was President of Technology at Google from 2001 to 2011 and President and Chairman of Google from 1998 to 2001.
- 9. Defendant John L. Hennessy ("Hennessy") has been the Chairman of the Board since 2018, lead independent director from 2007 to 2018, and a director since 2004. Hennessy was the President of Stanford University from 2000 to 2016 and was Page and Brin's mentor when they were graduate students there.

its annual profits exceed \$20 billion. It holds \$135.9 billion in cash, cash equivalents, and short-term investments, more than any other publicly traded companies. And because of Google's profitability, Alphabet has a market capitalization of \$1.8 *trillion*.

III. JURISDICTION AND VENUE

- 23. This Court has subject matter jurisdiction over all parties pursuant to 28 U.S.C. §1332(a)(1), because the Plaintiff is a citizen of a different state from every Defendant, and the matter in controversy exceeds \$75,000, exclusive of interests and costs. This Court has supplemental jurisdiction over the state law claims pursuant to 28 U.S.C. §1367(a).
 - 24. Plaintiff is a resident and citizen of the Commonwealth of Pennsylvania.
- 25. Nominal Defendant Alphabet is a resident and citizen of the states of Delaware, where it is incorporated, and California, where it is headquartered.
- 26. Most of the Individual Defendants are also residents and citizens of California, including Page, Brin, Pichai, Hennessy, Doerr, Shriram, Mather, Arnold, Washington, and Schmidt.
 - 27. Defendant Ferguson is a resident and citizen of New York.
 - 28. Defendant Mulally is a resident and citizen of Washington.
- 29. This Court has personal jurisdiction over each of the Defendants named herein because each Defendant is either a corporation incorporated, maintaining its principal executive offices, and operating in this District, or is an individual who maintains a place of business in the District, or has sufficient minimum contacts with this District so as to render the exercise of jurisdiction by this Court permissible under traditional notions of fair play and substantial justice. Further, the Individual Defendants purposefully directed or conducted much of the wrongdoing complained of herein in this District.
- 30. The Court has general jurisdiction over Alphabet, Pichai, Page, Brin, Schmidt, Hennessy, Doerr, Shriram, Mather, Arnold, and Washington because they are (or during the relevant periods were) residents of California.

- 31. The Court also has specific jurisdiction over the Individual Defendants because a substantial portion of the wrongdoing was directed from, and conducted in, California.
- 32. Venue is proper in the United States District Court for the Northern District of California pursuant to 28 U.S.C. §§1391(b)-(d) and 1441(a), because, *inter alia*, each Defendant is deemed to reside in any judicial district in which it is subject to personal jurisdiction at the time the action is commenced, because the Alphabet Defendants reside in this District, and because the Alphabet Defendants operate businesses in this District and maintain contacts within this District that are significant and sufficient to subject it to personal jurisdiction.
- 33. <u>Division Assignment</u>: This action should be assigned to the San Jose Division of this Court, as the Company is headquartered in Santa Clara County, California, under Local Rule 3-2(e).

IV. DEFENDANTS' DUTIES

34. The Individual Defendants, as directors and officers of the Company, have fiduciary duties of loyalty, care, and candor to the Company and its stockholders. It is always a violation of fiduciary duties for an officer or director of the Company to violate the law, regardless of whether that legal violation profits the Company or drives up the stock price. Delaware corporations only have the power to engage in "lawful business[.]" 8 *Del. C.* §122. This necessarily implies that an officer or director, charged with effecting the corporation's purpose, cannot engage in unlawful business. *In re Massey Energy Co.*, C.A. No. 5430, 2011 WL 2176479, at *21 (Del. Ch. May 31, 2011) ("For fiduciaries of Delaware corporations, there is no room to flout the law governing the corporation's affairs."). Similarly, officers and directors of a company must have systems in place to monitor the Company's compliance with the law, and failing to do so, or ignoring red flags that the Company is violating the law, are also breaches of their fiduciary duties. *See generally Marchand v. Barnhill*, 212 A.3d 805 (Del. 2019).

V. STATEMENT OF FACTS

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A. Google Leveraged Its Dominance in Search

Its only product at that time was a search engine based on an algorithm and comprehensive indexing of the World Wide Web. Google grew rapidly because of its efficiency and simplicity: initially, a Google search would return 10 blue links. By 2000, just two years after its founding, Google was the largest search engine in the world.

Google was founded in 1998 by Page and Brin at Stanford University ("Stanford").

- 36. Also in 2000, Google began to show advertisements initially consisting of text ads based on search keywords that were difficult to distinguish between organic search results. Advertisements were Google's main source of revenue, and allowed Google (and later, Alphabet) to become a consistently profitable company for more than 20 years in a row. Today, Google earns over \$100 billion in revenue each year.
- 37. Google's early dominance in general search has resulted in giving it advantages that other search providers cannot catch up to, thus creating high entry barriers. The first barrier to entry is the fact that Google has much more data of the web than other search providers. Because Google moved early, it was able to crawl the web for data and build up a huge database. It also has an impressive network of computer servers that allow it to crawl the web to begin with, as well as process the information quickly, so that it can return this data. Google's index contains hundreds of billions of webpages and is well over 100 million gigabytes. Creating, maintaining, and growing a massive index, as well as designing effective search algorithms that use such an index, would cost hundreds of millions of dollars.
- 38. Since Google's beginnings, however, other websites have become aggressive against web crawlers, so that even if a company had the money to build an index, it would not be able to gain access to enough webpages to do so. Google's crawlers are almost always allowed because its dominance means that websites must ensure they are in Google's search results to drive traffic to them. But newer would-be competitors are not able to build the same index because their web crawlers, being less important to the websites, often are banned.

- 39. Because its massive index and computing power allow it to return comprehensive results quickly, Google has also attracted more users. More users mean Google can collect more data. Because it has more user data, it is able to design better searches. Because it is able to design better searches, it is also able to get more users. This becomes a self-perpetuating cycle. Users who go to Google, however, are probably not going to use other search engines, at least to the same extent. So, to the extent Google is able to build its search algorithm through user data, other would-be competitors are not able to build their algorithms to the same extent because their fewer users means that they have less data to build the algorithm from.
- 40. Google leverages these "natural" barriers of entry, which create its initial dominance in desktop search, to then cement its dominance in search further through anticompetitive acts such as tying, bundling, data misappropriation, and other acts that tend to cement its position and prevent others from gaining a toehold.
- 41. Google also has used its dominance in search to help achieve dominance in the Internet Browser market, the mobile software market, video, navigational services, and other areas.
- 42. The first area where Google leveraged its dominance in search was to achieve market share in the ad market. Google has also taken other actions to achieve dominance in the digital ad space, *infra*, but the beginning of Google's ad market dominance was its use of search terms to base advertisements on, or search advertising. Search advertising began the same year Google became the largest search engine, in 2000. In 2002, Google further refined its model: advertisers would bid in auctions for keywords, and when those keywords were searched, the bidder's ad would be shown. Advertisers would pay only when a user clicks on the ad. Google also used its search algorithm to promote advertisements ranking ads to promote the more relevant ones and the ones with higher expected click-through rates.
- 43. Before Google popularized search ads, the predominant form of advertisement on the Internet was digital display ads, which were digital versions of the traditional ads one may see in a newspaper. They could take the form of banners on a website or pop-ups, which users often did not like and tried to block. Google's search ads, by contrast, were designed to be unintrusive

- 44. Google also has an incentive to maintain and grow its search dominance to maintain and grow its search advertisement business. And Google has taken numerous anti-competitive actions to maintain and grow its market share in search.
- 45. As documented in the October 2020 House Report, Google recognized approximately 14 years ago, in 2007, in an internal presentation, "Continued leadership in search underpins the whole business." Yet more troubling, the same presentation shows how a lot of information was deliberately withheld from the Board: "Each quarter we gather comprehensive search and market share data even though we [do] NOT share it with the board anymore." In 2009, according to the House Report, a senior executive circulated an email listing Google's market share in search, at that time 71.5% of general searches in the U.S; and in 2010, another Google employee noted in an internal email, "Google leads competitors. This is our bread-and-butter" and also noting that Microsoft Bing was "making clear, significant progress" on "bringing the two search engines closer to parity" and therefore it was "critical to redouble our efforts to maintain our lead."
- 46. As Google's dominance grew, it also began to show more ads in the search results. This in turn made for fewer organic search results. Thus, whereas previously a party could gain traffic from Google's directing traffic to their website through the organic search results, now that might be more difficult because ads were crowding out organic search results. This resulted in

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27 28 companies buying advertisements just to make sure their search results would show up high enough on a search page. One company, Basecamp, even bought an ad specifically stating that it purchased the ad so that it would show up on the search results. Yet companies were forced to endure and pay Google what amounted to a toll because Google's dominance in search meant that it could be the only source of user traffic, especially as many people now type in a search term in Google to find the webpage of a company that they already know. As the co-founder of Basecamp, David Heinemeier Hansson ("Hansson"), testified, loss of traffic from Google would be catastrophic to its business.

- 47. Google has also cemented its dominance in desktop search, not only through its natural advantages, but also through preset default status. Google initially grew market share for Google Chrome ("Chrome") by bundling it with the Google search homepage, as well as by constantly asking users to set Chrome as a default. According to the House Report, in a 2009 email, one Google employee noted, "I find the very, very high-profile promotion of Google Chrome on Google.com quite frankly, startling." Nevertheless, in the same year, Pichai, as then-Vice President of Product Development, encouraged the Chrome team to "promote through Google.com" and push users to set Chrome as their default browser. Then-Director of Product Management, Brian Rakowski, told his team how well this strategy was working, stating that promoting Chrome through Google Search was "performing exceptionally well" and "driving tremendous number of downloads." In 2011, Chrome employees noted how the growth rate decreased when the promotion stopped: "organic growth slowed a bit because our homepage promo was down for a couple of weeks."
- 48. Google then used Chrome to further cement its search dominance since Google Search was set as the default search option for the browser. Google requires a multi-step process for a user to attempt to switch to another search engine. Moreover, Google then prompts users to return to Google Search as a default even when they switched to another.
- 49. Furthermore, Google entered search ad revenue-sharing arrangements ("RSAs") with Mozilla (which runs the Firefox browser) and Opera to make Google the default search engine

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for those browsers, as well. Under its revenue sharing agreement, Google pays the browser company a percentage of search advertising revenue generated by the browser's users, so long as Google is the preset default general search provider on the browser. The revenue sharing gives browser developers an incentive to funnel searches through Google since that is how they could get search advertising revenue to be realized. Google recognizes, according to the DOJ Action, ¹ that it is "crucial to retain web browser partnerships." And it shares up to 40% of its advertising revenue it generates from the computer and mobile search access points on the browsers. Chrome is also the default on Android devices. As a result, Google is the preset default of more than 80% of the browser market. Over 85% of all browser usage in the United States occurs on Chrome or one of the browsers covered by these RSAs.

- 50. According to the House Report, when Google was starting off in the browser market, Google executives closely tracked Microsoft's Internet Explorer's search default selections and expressed concerns that non-Google defaults would impede Google Search. Google began to build dominance for Chrome by having Chrome automatically sign users into other Google products when signed into Chrome, adding to user convenience, but also helping Google collect more user data. Google claimed, in a 2019 presentation to the DOJ, that Chrome was launched to protect users' access to Google's products. But the House Report shows that in 2010, one of Google's strategy documents listed Chrome as a driver of "significant value" -i.e., that it would offensively be used for growth rather than be merely defense, and in 2011, then-Google CEO Schmidt told the whole company that the rise of cloud computing meant that the browser, as the primary means for accessing the cloud, would be increasingly critical to Google's success.
- 51. Google also uses its dominance in the browser market to unilaterally set standards because other companies must adhere to those standards for compatibility with Chrome, and they need to be compatible because Chrome's dominance means that they would lose market share if they do not adhere to Chrome's standards. Even further, Google has an oversized representation

The "DOJ Action" refers to the following action: U.S. v. Google LLC, Case No. 1:20-cv-03010 (D.D.C. 2020).

in the World Wide Web Consortium (W3C), one of the leading standards organizations in the browser market. Google employees comprise 106 members in the W3C web platform incubator community group, which is eight times the representation of the next largest stakeholder, Microsoft.

- 52. In addition to having agreements that make it the preset search engine or default of the vast majority of browsers and mobile operating systems, Google also furthers its dominance by preferencing its own products over others, and by misappropriating data that it gathers from users and third parties. It has used these tactics to stifle nascent specialized or "vertical" search providers, who have to accede to Google's demands because Google, as the dominant general or "horizontal" search provider, is the primary source of traffic to specialized search providers.
- 53. Google was originally purely a general or "horizontal" search provider. A user would enter a query and click on links that resulted from the search query to be directed to other websites for more information.
- 54. A specialized or "vertical" search provider, on the other hand, focuses on a particular area (such as travel or local services), and often provides more than just search for example, the ability to write reviews, or the mechanisms for completing a payment transaction, or special discounts. While a general search provider's primary source of revenue is from advertisements, a specialized search provider may also generate income from other sources, such as referral fees and commissions. They build data through consumer reviews and other user activity, rather than through web crawling and indexing.
- 55. But to gain traffic, specialized search providers often rely on search advertisements to direct them to their websites. Or they are directed traffic as a result of organic search inquiries on general search engines. Because Google is by far the dominant general search engine, it then serves as a gatekeeper. Vertical search providers rely on Google for approximately 30%-40% of their traffic, and a much higher percentage in some instances. Because of their reliance on Google, they must purchase search advertising in addition to appearing in organic search results to ensure they are high enough in the search results to attract traffic.

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- As early as 2005, according to the CO AG Action, Google recognized: "Vertical 56. search is of tremendous strategic importance to Google." This is because if Google is not a player in the vertical search space, "the risk is that Google is the go-to place for finding information only in the cases where there is sufficiently low monetization potential that no niche vertical search competitor has filled the space with a better alternative." The House Report also quotes Google executives' concerns dating as far back in 2005 on the "real threat if we don't execute on verticals" that would include "loss of traffic from google.com because folks search elsewhere for some queries" or "related revenue loss for high spend verticals like travel" or a missed opportunity "if someone else creates a platform to build verticals" and especially highlighting "if one of our big competitors builds a constellation of high quality verticals, we are hurt badly". The House Report quotes a 2006 strategy memo asking, "How do we deal with the problem of 'proliferating verticals?" The CO AG Action also quotes a Google executive as more recently saying "in some cases on-demand players have a very rich amount of information from the merchants because of their deep relationship which can enable them to have a set of information that consumers could really like, which will then cause the consumers to start with them instead of starting with Google."
- 57. As a result of vertical search's "strategic importance" as a source of revenue and as a competitive threat, Google has entered the vertical space, using its dominant position in general search and vertical search providers' reliance on it to anticompetitively gain market share.
- 58. When Google enters a particular commercial segment, such as local home services, it denies specialized search providers the ability to purchase specialized advertisements in its specialized-advertising carousel, and it stops them from appearing in the "OneBox" that is the most prominent part on Google's search page that provides specific information instead preferencing its own products for that space. But if Google has not entered a commercial segment, Google permits those specialized search providers to appear in the carousel and OneBox.

The "CO AG Action" refers to the following action: *Colorado v. Google LLC*, Case No. 1:20-cv-03715 (D.D.C. 2020).

- 59. Regarding the OneBox, when Google enters a specialized area it preferences its own specialized search results in the OneBox, and it also prevents those providers from being in the more prominent organic results. It relegates the specialized search providers' results to advertisements or to less prominent search results. It does not follow these restrictive policies for specialized search providers in segments it has not entered, thus illustrating Google's anticompetitive intent.
- 60. Furthermore, regarding the vertical search results in areas where Google is competing, Google often does not link to their specialized features such as ratings and reviews, thus further degrading the quality of the search results to the vertical search provider and making it less likely to gain traffic. Yet on the same Google search results page, Google will include ratings and reviews in its own content, which shows that Google can, but because of anticompetitive motives is not willing to include these features for its competitors.
- 61. Furthermore, Google has increased the number of ads and as a result has pushed down the number of organic results on its page. In the commercial segments that Google chooses to compete in, this essentially means that an entire search page can become an ad: either ads by third parties or what is effectively advertisement by Google for its own products in the OneBox, with organic search results from specialized search providers or others not even appearing on the page (unless they buy advertisements to put their results up in the ads) or appearing so low on the page that a user is unlikely to click on it.
- 62. The House Report has detailed how Google's self-preferencing and increasing number of ads has essentially made it a requirement for many companies to "pay to play" to appear in search results, because hoping to be listed organically would result in a low ranking after being crowded out by ads and Google's own products. Thus, to appear early in search results, these companies would have to pay for advertisements on Google to be ranked high up. Hansson, illustrated this phenomenon at a Congressional hearing, showing how Basecamp bought an ad, which states: "Basecamp.com | We don't want to run this ad." Explaining "We're the #1 result, but this site lets companies advertise against us using our brand. So here we are. A small,

independent co. forced to pay ransom to a giant tech company." Hansson testified: "Google uses this monopoly to extort businesses like ours to pay for the privilege that consumers who search for our trademarked brand name can find us because if we don't, they will sell our brand name as misdirection to our competitors." Furthermore, he added, "You will find no competitor ads for any of Google's own important properties." Hansson also testified that Google's practices amounted to erecting "tollbooths" and that the tolls had to be paid because of its dominance as a source of leads. He observed that 40% of Basecamp's leads came from Google, and no other search engine accounted for even 1%. Sonos' CEO also confirmed that it had to buy its own brand name from Google to stay high in the search results.

- 63. Google also requires specialized search providers to give it unfettered access to their proprietary data, and then combines that data with content chosen by Google, to improve the apparent results from Google's proprietary offerings. For example, Google's Hotel Units which it places in its OneBox for search results for hotels contains a combination of content that Google chooses and this includes prices that Google pulls from specialized vertical providers who Google requires to produce that data to them. But Google bars the vertical providers themselves from showing up as links in the OneBox.
- 64. Specialized search providers feel compelled to give up this data because of their heavy reliance on Google for directing traffic to their sites in the first place. And Google often requires that information in exchange for permission to appear in the second page of Google's vertical: the Google page that a user is taken to after clicking on the relevant search topic.
- 65. The House Report quotes a series of exchanges in 2010 and 2011 between Google executives and Yelp executives, including Yelp's CEO, where Yelp was forced to give up data that Google used to build out its competing product, Google Local, or risk being shut off from Google Search. Google's strategy was deliberate. According to the House Report, quoting from an April 24, 2007, internal discussion at Google, which noted: "[T]here is nothing else 'yelp like' in our current lineup" and noting that Yelp's CEO "just contacted the account manager here and asked that their contract be revised so that they could cancel it immediately if we launch reviews,

that doesn't mean that they would do it, but clearly this is a big deal to them." And the House Report also quoted an August 10, 2010, email from Yelp's CEO demanding that Google immediately remove Yelp's proprietary content from Google Local, its' just launched competing product: "Given that this App directly competes with the Yelp App and offers little value to Yelp we cannot allow Google to continue leveraging our content in this way. We've communicated to Patrick and Carter that your team needs to remove our content within the next week. Since you already communicated to me that it would be un-Googley to not remove our content when requested, I'm confident your team will do the right thing." And when Google Local was not gaining momentum, an August 10, 2011, email between Yelp and Google showed that Google would only remove Yelp's content from its Local search results if it removed Yelp entirely from Google's search results: "I was surprised to find that by opting out of Google's local product, Yelp was automatically opted out of portions of Google's search results. Carter Maslan and John Hanke last year said they couldn't/wouldn't remove Yelp content from Google's local product because local was powered by the same index as web search, sounds like this was never really the case." And a Google executive apparently replied: "To be able to reference Yelp's content in the parts of search results we discussed, our local service needs to be at least aware of the existence of Yelp pages. Since we stopped using any crawled Yelp pages for our local services in response to your request, this currently isn't possible. That said, I think that the approach we discussed, with Google making limited use of Yelp data in the ways you described, is a constructive way to get a comprehensive view for our users." As early as 2007, Google's internal documents, as quoted by the House Report, showed that it knew Yelp relied on Google for its traffic: "78% of their uniques come from google. [I]f they are acquired, I [sic] would assume that they wouldn't turn us off."). Thus, Google executives were knowingly leveraging Yelp's dependence on Google to force it to give up valuable content to advantage Google's competition against it.

66. The House Report also detailed other instances of misappropriation, even when the vertical provider refused, of content from third parties by Google, including misappropriation of data from Celebrity Net Worth (which led to a decline in its traffic because people stayed on

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Google search pages that had its results rather than go to the website), and song lyrics from Genius, while deliberately attempting to hide the source (which Genius caught because it used a digital watermark). When asked about the misappropriation by Genius, Google and Alphabet CEO Pichai told Congress that this was merely "a dispute between Genius and other companies in terms of where the source of the content is."

- 67. The House Report also detailed how Google in 2007 and 2011 launched an algorithm that demoted sites of "low quality" in its search results, yet this invariably fell on third-party providers rather than Google's own products, even when Google's own products relied on data aggregated and copied from other sites (just like the ones that Google demoted). The House Report detailed how one provider was removed from Google's search results for given search terms completely, and moreover, Google would do so after favorable press regarding the provider's popularity, thus showing that Google deliberately sought to stifle rivals' growth. Google gave preference to YouTube in search results for videos, even when competitor videos had higher engagement.
- 68. Google's starvation of vertical search providers and its self-preferencing have led to Google becoming a "walled garden" where Google searches now in a majority of cases no longer result in a user clicking a link, but rather the user stays on Google's search results page and is able to obtain all the information he or she needs. This in turn starves Google's vertical search competitors who are Google's ad customers from revenue to be generated from traffic. Instead, Google keeps all the traffic for itself.
- 69. Google's tying and further cementing its search dominance in turn entrenches its dominance because it has access to massive amounts of data that it can use to improve its search algorithms and is a trove of information that makes Google invaluable to advertisers. Google's data sources include information from search inquiries on the Google search engine, its Chrome browser, over 100 million U.S. Android mobile users, Google Assistant, and more than one billion Google account holders across the globe. Google is able to collect data from these consumers using "tags" and other tracking technology that monitors how consumers act after viewing

advertisements. Google's tags are present in 81% of the top 1 million visited websites, and they are all allowed because websites and advertisers depend on Google to generate views and hits. The company with the next largest number of tags, Facebook, Inc., only has them present on 44% of websites. Microsoft Bing, which is the next largest search engine in the United States (but far smaller than Google), is present on fewer than 1% of websites. Google further combines data it gathers from search inquiries and site visits with location tracking data, which allows Google to tell if an ad has led to an off-line physical purchase.

- 70. Another source of self-preferencing is Google exclusionary contracts regarding the distribution of its Google Assistant voice assistant technology on mobile, home, and vehicular devices.
- 71. A voice assistant is a voice recognition software that processes commands based on a consumer's verbal commands and queries. Voice assistants are usually integrated with a general search engine to facilitate responses to consumer queries.
- 72. Where Google does not own the consumer-facing voice assistant, it has contracted with providers to ensure that Google's general search engine will be used for search queries. Apple's Siri and Samsung's Bixby, for example, both use Google's general search services.
- 73. Google has also used exclusionary agreements with manufacturers and distributors who use Android to set Google Assistant as the default voice assistant application, and it has modified revenue sharing agreements to provide for exclusivity for Google Assistant across mobile devices. This then effectively shuts out Amazon's Alexa and other voice assistants from the vast majority of mobile devices, which run on Android.
- 74. In addition, Google sells its own smart speakers that use Google Assistant. In Google's smart speakers, Google Nest, it has denied them the ability to leverage other technologies that would incorporate other voice assistants simultaneously, or "concurrency." According to the CO AG Action, in what appears to be a quote from an internal document, Google knows that concurrency is "unfavorable to Google" because it would allow consumers to try Alexa, and "Amazon is likely to win high-value use cases." (Bracket removed). Thus, for its television,

speaker, and home device makers, Google requires restrictive contracts that prohibits more than one voice assistant from running concurrently on the device. Google then cements its status by having Google Assistant set as the default.

- 75. Google has also established Google Assistant as the default in automobiles by offering car manufacturers a free Android operating system with a bundle of Google's proprietary applications including Google Assistant, Google Play Store, and Google Maps, known as Google Automotive Services. In return, Google agrees to certain restrictions and exclusionary terms, which gives Google Assistant exclusivity (or default status that often effectively means exclusivity).
- 76. According to the DOJ Action, Google also uses its control over hardware products, such as smart speakers and Google Nest smart home products, to protect its general search market dominance. The DOJ Action quotes Google as having stated that its "[h]ardware products also have <u>HUGE</u> defensive value in virtual assistant space AND combatting query erosion in core Search business." (Emphasis in original). This protects Google because it saw how "Alexa and others may increasingly be a substitute for Search and browsers with additional sophistication and push into screen devices."
- 77. Furthermore, Google has also engaged in predatory pricing to sell its hardware, Google Nest, to gain market share for the Google Assistant. It faces a lawsuit by Sonos, a smaller smart speaker manufacturer, which has been competitively disadvantaged by Google flooding the market with below-cost speakers, as well as Google's refusal to allow concurrency so that a speaker that carries Google Assistant cannot carry another voice assistant.
- 78. Furthermore, Google has entrenched its dominance in search advertising by limiting interoperability of its search advertising tool, SA360, despite its promises to operate it in a neutral fashion.
- 79. Google's largest search advertising competitor is Microsoft through its Bing search provider. Although Bing's market share is in the single digits, it is the only other general search

engine that crawls and indexes the web and sells general search advertising. Thus, Bing remains a potential rival for general search advertising dollars.

- 80. SA360 is Google's search engine marketing ("SEM") tool that advertisers rely on to place general search advertising and some digital ads on platforms such as Google. SEMs are useful to advertisers because they allow them to purchase and evaluate search advertising from multiple search engines using a single tool and interface, and automate aspects of search-related advertising such as bidding in thousands of keyword auctions. As a result, about half of all U.S. general search advertising dollars about \$25 billion per year are spent through a SEM tool. Most of the remainder is purchased directly from general search engines without using a SEM tool, but instead through "native tools," such as Google Ads (formerly AdWords) or Microsoft Advertising (formerly Bing Ads). SEM tools are more efficient because they are able to unite access to "native tools" in a single interface.
- 81. SA360 is the dominant SEM tool: it channels more general search advertising spending than all other SEM tools combined. To induce advertisers to adopt SA360, however, Google repeatedly assured advertisers that it would be a neutral tool, so that advertisers can make an objective decision whether to purchase search advertising from Google, Bing, or another general search engine. The CO AG Action quotes Google's marketing materials that make this representation from as early as 2011. These promises induced advertisers to adopt SA360, which now accounts for 60% of the SEM market.
- 82. But Google has not operated SA360 neutrally. Instead, it has built in advantages for itself and disadvantages for competitors, Microsoft Bing in particular. The biggest advantage Google confers on itself is it makes the SA360 interface interoperable with auction-time bidding for Google's search advertising. But it does not make this interoperable with Microsoft Bing. As a result, SA360 offers real-time bidding for Google's auction key words, but only delayed bidding for Bing. This makes advertising through Google far higher value because real-time bidding uses data more effectively and optimizes search key words, while delayed bidding uses stale information and results in less effective advertisements. While both Google and Bing offer

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advertisers the ability to bid in real time through their native tools, SA360 only allows advertisers to integrate Google's auction-time bidding technology. Playing out across millions of auctions, this lack of interoperability steers advertisers to bid through Google, because it more effectively utilizes the features SA360 helps with. This harms Microsoft in particular by steering dollars away from Bing. The lack of interoperability also means that advertisers are less induced to steer toward Bing's more advanced and profitable features, taking advantage of similar features by Google instead, further highlighting the gap in dollars between both companies' advertising revenue. As Google achieves greater dominance, it is able to raise prices for its ads, which in turn get passed to consumers.

83. The most striking example of Google's use of its existing dominance in Search to dominate another market, and then use that dominance to further strengthen its dominance in Search, is through Google's dominance in mobile software by promoting and eventually enforcing its own version of Android. Google took numerous steps to achieve dominance in mobile software through Android, in part to build its dominance in mobile search. Initially, it induced the adoption of Android through making it open-source. Google also purportedly bought Motorola Mobility ("Motorola") to protect the Android ecosystem from the prospect of patent litigation, for \$12.5 billion in 2011 (the largest acquisition for Google, ever), and the Motorola business lost hundreds of millions of dollars per quarter, and it sold Motorola to Lenovo three years later for less than \$3 billion, while retaining ownership of the majority of Motorola's patents. However, they then set about getting manufacturers who adopt Android to sign exclusionary agreements, offering as both carrot and stick Google products. On the one hand, manufacturers needed products such as Google Search or YouTube, because they were dominant platforms that users would expect a manufacturer to have and would use. On the other hand, Google further cemented the dominance of these products by requiring manufacturers to set its products, such as Search, as preset defaults, and sometimes as products that could not be uninstalled. Google also further expanded the dominance of Google Search by requiring manufacturers to set Google Search as the exclusive or default search mechanism at different search access points on a mobile device. And Google used

exclusionary agreements to prevent manufacturers from creating their own Android-based platforms, different from Google's approved version, and thus maintained control of the Android experience. Furthermore, even though the default requirements were a "pill," Google also offered a "sweetener" in the form of RSAs, whereby Google would share search ad revenues (and for Android devices, app store revenues, too), in return for default or exclusive status for Google Search at various search access points.

- 84. Google knows the importance of having the default status, especially on mobile devices. The DOJ Action quoted a 2018 strategy document that states: "People are much less likely to change [the] default search engine on mobile." And even earlier in the history, Google knew about the importance of achieving dominance in mobile, because of how search was increasingly shifting in that direction. In its 2007 Form 10-K, Google disclosed: "More individuals are using non-desktop devices to access the Internet. If users of these devices do not widely adopt versions of our web search technology, products or operating systems developed for these devices, our business could be adversely affected." Google also knew that it had to deal with both mobile device manufacturers (e.g., Samsung) and carriers (e.g., AT&T). The DOJ Action quotes an internal Google document asking, "How can we conquer the world's major wireless markets simultaneously?"
- 85. Google's first step was to acquire Android in 2005. Then it released Android's code in 2007 for free under an open-source license, which meant that anyone could access the source code and modify it if they chose into their own operating system, or create a "fork."
- 86. Google making Android open-source gained trust from skeptical manufacturers and carriers, who were persuaded to use Android instead of other systems. This alleviated their concern, as was observed to Google's Board, according to the DOJ Action, that "Google was historically seen as a threat[.]"
- 87. As major distributors agreed to use Android, the operating system also attracted more developers because their apps were promised a wide distribution. As more app developers

more developers to Android, and so forth.

88. But even from the beginning, Google was concerned about control over Android

designed apps for Android, Android became more attractive to consumers, which in turn attracted

- 88. But even from the beginning, Google was concerned about control over Android, which would in turn give it control over growing market share for Google products. As the DOJ Action details, Google's Android team leader asked early on: "How do we retain control of something we gave away?" And his response was to use "carrots" and "sticks" to help Google "[o]wn the ecosystem."
- 89. By 2010, according to the DOJ Action, the Android team leader observed that "Android is poised for world domination—the success story of the decade." Between 2009 and 2012, Android's share of licensable mobile operating systems (which does not include closed-end systems such as Apple's iOS) tripled to 80%. Today, Android's market share among licensable mobile operating systems is 95% in the United States; Android is the operating system for more than 70% of *all* mobile devices worldwide. With Android as an already dominant system, Google then sought to cement and further Android and Search's dominance through a series of anticompetitive agreements it made manufacturers and distributors enter.
- 90. Google used three types of agreements with Android manufacturers and distributors to cement Android's dominance and Google Search and other Google products' dominance. First, Google required Android device manufacturers to sign anti-forking agreements: those agreements set restrictions on manufacturers' ability to sell devices that used non-Google approved Android platforms. Second, for those who signed anti-forking agreements, Google would provide access to its key proprietary apps and application program interfaces ("APIs") but only if the manufacturers agreed to: (1) take a bundle of other Google apps; (2) make some Google apps undeletable; and (3) give Google valuable space on the mobile device's home screen. Finally, Google would use its "sweetener" in the form of RSAs in exchange for Google being made the default general search engine for the most important search access points on the device. As one senior executive, according to the DOJ Action, observed, while Google making distributors use

their app development store was a "bitter pill[,]" the "generous revenue share is the sugar that makes it go down smoother."

- 91. The first mechanism is Google's use of anti-forking agreements. These prohibit manufacturers from taking "any actions that may cause or result in the fragmentation of Android." "Fragmentation" is left undefined. More specifically, these agreements prevent manufacturers from developing or distributing versions of Android that do not comply with technical standards defined in Google's Android Compatibility Definition Document ("ACDD"). These agreements prevent a manufacturer from developing or supporting Android forks that could then compete with the Android ecosystem that Google controls. Over time, the ACDD has been extended so that it applies to tablets, smart TVs, smart watches, automotive devices, and other emerging technologies. Manufacturers of these devices are also required to comply with Google's standards.
- 92. The anti-forking agreements are a precondition to receiving a license to distribute devices with key proprietary Google apps and APIs. This license is provided through preinstallation agreements called Mobile Application Distribution Agreements ("MADAs"). Google has placed important features and functionality in Google's own ecosystem of proprietary apps and APIs, which it called "Google Mobile Services" ("GMS"), rather than in the open-source Android code. GMS includes key Google apps, such as Search, Gmail, Chrome, YouTube, and Maps. GMS also includes Google Play Store, which is Google's app store, a feature critical to manufacturers or distributors because it offers access to apps that do not come preinstalled on the device. Google Play Store offers about 3 million apps, which is more than any other app store. Furthermore, critical APIs Google controls, and are available only through GMS, perform functions that are not included in the open-source Android code, such as basic push notifications, in-app purchases through Google Play Store, and data from Google Maps.
- 93. But the MADAs are both a carrot and a stick. Because they not only give access to certain apps that the manufacturer can preinstall, but they *require* the manufacturer to preinstall a full suite of apps Google chooses, including the search access points most frequently used by consumers: Chrome; Google Search; Google Search Widget; and Google Assistant. Google also

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makes its search engine the default on all these search access points. And the MADAs go so far as to even control the appearance of the devices, for example, by requiring the manufacturer to place the Google search widget on the home screen. Furthermore, Chrome, Google Search, Gmail, Maps, YouTube, and Google Play Store must be undeletable. These create a tying arrangement because if a manufacturer wants Google Play or GPS, they must include these other apps. Therefore, the apps help reinforce each other's market dominance. The DOJ Action states that Google recognizes that a better consumer experience would be to make preloaded apps deletable because it would free up space for users from apps they do not want.

94. Google was particularly concerned from the outset that Android be used to protect and enhance the positioning of its already dominant Search. According to the House Report, then Vice President of Product Development, Director of Engineering for Android, Patrick Brady, recalled that in a 2013 meeting with Defendant Pichai, "His main feedback was . . . Search is sacred, must be front and center." Brady added, "Our proposal covers that through more prescriptive search placement requirements." Brady also noted that "Some OEMS . . . do not like the idea of signing up to undefined requirements, but most of our partners are somewhat used to this as the Compatibility requirements evolve with each release, and our [] suite expands (incl. mandatory apps) over time." Moreover, in 2014, John Lagerling ("Lagerling"), Senior Director of Global Partnerships, pushed back against one manufacturer who attempted to secure additional rights, writing: "In your redlines on" its contract with Google, "you are suggesting [that the manufacturer] approves any new additions to GMS. This has never been the case in our past history[,] and I think it is the wrong message for [the manufacturer] to send Google. We just spent some hours explaining . . . that one of the main reasons we do Android is in order to secure distribution of Google services." In 2014, Lagerling was also aware that Google's onerous preinstallation requirements worsened the consumer experience, because "Users have been complaining to [a manufacturer] that [it] sells them a 16Gb phone and delivers something that only has 7-8Gb free." Nevertheless, Google maintained those requirements to enhance its own dominance. And Google's internal documents showed that Google pushed to have Gmail used

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over manufacturers' own email clients, and Android Pay (a predecessor to Google Pay) to be used over a manufacturer's own mobile payment app.

- 95. Google also protects its products' default placement. According to the DOJ Action, for example, Google refers to changing Chrome's preset default status in Android devices as "totally off the table" and if a manufacturer "values their MADA, they cannot modify Chrome's settings." And the requirement to put the Search widget on the home screen is similarly valuable to Google and it rejects requests by manufacturers to waive that requirement because it is "an essential part of the Google brand." Google's internal documents, according to the DOJ Action, show how it has disciplined or threatened to discipline (by pulling its products) manufacturers or carriers who have sought to deviate from these agreements.
- 96. Furthermore, the MADAs impose the requirement that Google Assistant (the voice searching mechanism) is preferred by requiring manufacturers to implement a Google hot word to activate Google Assistant and ensure that certain touch actions on the home screen also directly access Google Assistant or Google, and for most manufacturers, set Google Assistant as the default assistant app. This lines up with internal Google documents that the DOJ Action cites that have recognized "Voice platform will become the future of search" and that it has "search defensive value."
- 97. For manufacturers and distributors who sign the anti-forking agreements and MADAs, Google also offers a sweetener: RSAs that give companies a percentage of search advertising revenues, but only if its general search service is the default setting on a list (which Google constantly expands) of search access points. Moreover, revenue sharing will only take effect if *all* the distributor or manufacturer's Android devices comply with Google's exclusivity requirements. The leading carriers AT&T, T-Mobile, and Verizon and the leading Android device manufacturer Samsung all have RSAs.
- 98. Google has also further strengthened some of its RSAs as mobile incentive agreements ("MIAs") that pay manufacturers to: (1) forego preinstalling rival general search services on their Android devices; and (2) comply with "incentive implementation requirements,"

which include preloading up to 14 additional Google apps. LG and Motorola have MIAs. And to maximize payments under the MIAs, the manufacturers must set Google as the default for all search access points on almost *all* of their devices, and Google retains "sole discretion" to determine what is a "search access point." Google has RSAs or MIAs with all major U.S. carriers and Android device manufacturers, as well as some small carriers and manufacturers, together accounting for roughly 30% of all mobile devices in the United States.

- 99. According to internal documents that the DOJ Action quotes and excerpts, including a draft 2014 strategy deck, the RSAs "provide exclusivity of Search on devices" and allows Google to impose "more stringent requirements as a result of payment." Moreover, owing to Google's self-reinforcing growing market strength, "since 2012 renegotiation of deals have brought revshare % down substantially." These RSAs "prevent[] the preinstallation of other Search engines or browsers" and allows Google to "protect Search exclusivity[.]"
- 100. The DOJ Action also quotes Google executives who acknowledge that: exclusivity is "the general philosophy of the RSA or one of the tenets of the value exchanged in the RSA"; that Google's "philosophy is that we are paying revenue share *in return for* exclusivity"; and RSAs are "really important" because "otherwise Bing or Yahoo! can come and steal away our Android search distribution at any time." The DOJ Action quotes another executive, in 2017, as stating that RSAs are a "lever for motivating partner behavior that is consistent with our goals for Google and the ecosystem" and "drive incremental revenue (securing search defaults not covered by MADA)."
- 101. Google's payments are substantial. In 2020, according to the DOJ Action, Google paid major U.S. carriers more than \$1 billion. The RSAs are also for two—three-year terms, and if a carrier or manufacturer does not renew its RSA, it will lose not only the revenue share for new mobile devices, but it will also lose revenue for the phones and tablets previously sold to customers. This in turn makes the RSAs a stick, as well, to prevent manufacturers and distributors from turning off the spigot.

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102. According to the House Report, Google also used its dominance in Android to collect data on users and developers, which further helped Google monetize its ad business and provide market intelligence on tracking emerging competitors and business trends. Google's agreements with device manufacturers require them to configure a "Client ID" in each smartphone that enables Google to combine metrics it tracks in the hardware combined with all the other data Google collects on users. And a January 2014 document cited by the House Report requests manufacturers to use a Google Account as the identifier rather than a non-Google account. Moreover, Google only allows downloading of apps on the Play Store through Google accounts. Google also uses Android to collect location data. All this combined allows Google to create sophisticated user profiles regarding demographic information, where they are located, where they go, and what apps they use at what time and for how long. Google has billions of these user profiles.

103. The House Report also details Google's project "Lockbox" where it collected data for third-party apps and other market intelligence, since at least 2012. Among the metrics Lockbox measured are tracking how installation of the Amazon app corresponds to a trend in Amazon's shopping queries, and also trends relating to Candy Crush and Angry Birds. In about 2013, Lockbox grew from collecting information about app installation to the actual usage and time spent on apps. Google used this data to compare Google's first-party apps against third-party apps, according to the House Report, citing a January 13, 2017, report. The same document, according to the House Report, supports how Google has used the market intelligence gathered through Lockbox to inform Google's strategic moves and potential business transactions. For example, YouTube employees used Lockbox data to track TikTok usage in India when Google was developing and planning a TikTok rival. When confronted with allegations about how Android surveilled rival apps to develop competing products, at a Congressional hearing, Pichai responded, "we try to understand what's going on in [the] market and we are aware of, you know, [the] popularity of apps" but claimed that "the primary use for that data is to improve the health of Android."

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104. Google has also built its dominance in mobile search through Apple's iOS. Just like with Android device manufacturers and carriers, Google has an RSA with Apple. Google's arrangement with Apple, in the United States, is its key to achieve domestic mobile software dominance, because Apple smartphones account for approximately 60% of the domestic smartphone market. Furthermore, Apple's iOS is a closed system. Google has managed to turn the closed system to its advantage through its agreement to pay Apple a cut of its search advertising revenue in return for Google being made the default search engine on Apple's browser, Safari. Google has paid approximately \$8 billion-\$12 billion to Apple each year to maintain Google's default status on Safari and other Apple search access points. And according to recent news reports, Google may pay up to \$15 billion in 2021 to maintain its default status, and payments may go up to \$20 billion in 2022. These revenues are significant to Apple and provide a set of golden handcuffs that disincentivize Apple from developing its own general search engine (which in any event would also cost an enormous amount of capital expenditures and research and development): the money that Google sends to Apple makes about 15%-20% of Apple's worldwide profits. The revenue sharing also provides Apple every incentive to push more searches to Google and thus help Google deny search traffic to its rivals.

105. The DOJ Action quotes other Google documents that recognize that "Safari default is a significant revenue channel" and that losing the default status on Safari would be "Code Red." According to the DOJ Action, in 2019, Google estimated that about 50% of all of its search traffic originated from Apple devices.

Android) and extended this agreement in 2016 – including making Google the default search engine for Siri (Apple's voice-activated assistant) and Spotlight (Apple's system-wide search feature). Google officers spend significant time on the Apple relationship. The only significant search point where Google does not appear to be the default on Apple is navigational services, where Apple still encourages the use of its application, Apple Maps. However, Apple Maps was released in 2012, and before then, Google Maps was the default navigational service on iOS, so

 Google had roughly a five—seven-year head start in building out its navigational prowess through iOS and has further cemented its original lead because of its network effects and high entry barriers. According to the DOJ Action, in 2018, *Apple and Google's CEOs, Tim Cook and Sundar Pichai, respectively, met to discuss how the companies could work together to drive search revenue growth*. And after the meeting, a senior Apple employee wrote to a Google counterpart: "Our vision is that we work as if we are one company." (Emphasis added).

107. Because Apple has the largest smartphone market share in the U.S., its Safari browser is also the largest mobile browser, and therefore, being the preset default on Safari allows Google to capture 55% of mobile search. Overall, Google's agreement with Apple covers 36% of all domestic searches (when including Apple's desktops, as well). Google captures another 35% through its default positioning in Chrome on Android devices. Thus, Google captures 90% of the mobile search market just based on its default status on the most commonly uses mobile browsers.

B. Google Runs a Monopolistic Play Store

108. Entrenching Search was not Google's only leveraging of a monopoly in Android. Google also used similar tactics to attain a monopoly in charging for apps on the Google Play Store. As the Utah AG Action³ points out, Android is "open-source" in name only. Google's approved version operates in over 9% of smartphones with licensed operating systems (*i.e.*, devices other than Apple). And because of high costs of entry, including the cost of research and development, network effects, and high switching costs from going from one to another operating system ("OS"), Google's monopoly is durable. Microsoft and Amazon, for example, have both attempted to enter the market but with very limited success (Amazon is one of the few companies with a non-Google Android system). As the "internet of things" grows, so that a person may use GPS in their cars, or smart speakers at home, the intertwining of different devices with one common OS matters even more. So even though Apple has an overall greater market share than

The "Utah AG Action" refers to the following action: *Utah v. Google LLC*, Case No. 3:21-cv-05227 (N.D. Cal. 2021).

Android in the U.S., Google is able to hold onto Android users because they would find switching from Android – which may be the OS for multiple devices – to be too cumbersome or expensive.

- 109. As detailed above, Google uses anticompetitive agreements with manufacturers and distributors to induce them to install Google's approved version of Android with preset defaults for Google's products, such as the Google Play Store, where Android apps could be downloaded. The Utah AG Action provides additional details about how these agreements created and entrenched the Google Play Store monopoly on Android devices.
- 110. To begin with, Google uses anti-fragmentation agreements that prevent signatories from taking "any actions that may cause or result in the fragmentation of Android" and agree to restrictions on the manufacture and sale of devices running forked versions of Android. Moreover, these agreements stop manufacturers from modifying Android to offer easier sideloading of competing app stores, which Google would define as an impermissible "Android fork."
- Agreement" ("DDA") as a precondition to being listed in the Google Play Store, which prohibits developers from using Google Play Store "to distribute or make available any Product that has a purpose that facilitates the distribution of software applications and games for use on Android devices outside of Google Play." This restriction has been imposed since at least 2009, when it was referred to as a "Non-Compete." And while Google has since become more cautious about how it names these provisions, it made this restriction even stricter in 2014 after Amazon had tried using an earlier version of the agreement to distribute its own app store through Google Play Store, so that Amazon now had to resort to sideloading for a user to download and install its app store.
- 112. Google also requires manufacturers and carriers to sign MADAs and RSAs. And Google recognizes these for their strategic value. The Utah AG Action quotes a 2019 document where Google stated it was "fine-tuning Android Search Rev share (ex Samsung) to protect Google from key strategic risk" which would include "higher exposure of Search and Play revenue."
- 113. Google requires the entry of a MADA for a manufacturer or carrier to license Google's proprietary apps and APIs. MADAs authorize the distribution of GMS, which is a bundle

of Google's proprietary apps including Google Play Store, as well as Google Play Services APIs that enable apps to access key functions. MADAs also require manufacturers to make some Google apps, such as Google Play Store, undeletable, and give Google valuable real estate on the home screen.

- Android devices or use the Android trademark. And it conditions the licensing of GMS on execution of the MADA, which includes Google Play Store, and other must-have apps like Gmail, YouTube, and Google Maps. Access to Google Play Services also requires the entry of the MADA. The APIs contained in the Google Play Services are essential to the functionality of the vast majority of the top paid and unpaid Android apps. The APIs also include basic OS functionality, such as accessing the device's sensors.
- 115. The MADA bundles many products in one package: the Android trademark, the core functionality from Google Play Services, the Google Play Store, and a suite of Google proprietary apps. Moreover, the MADA is itself bundled with the anti-fragmentation agreements because the availability of the MADA is contingent on first entering an anti-fragmentation agreement.
- 116. The MADA gives Google Play Store several advantages and tends to dissuade the installation of rival app stores. First, Google Play Store is pre-installed, and an icon is placed on the home screen. That automatically gives it the most prominent placement as the default app store, and users rarely change their defaults. Even if another app store is preloaded on the device, it will not have the same default home screen placement.
- 117. A 2017 Google presentation regarding Amazon's app store, according to the Utah AG Action, notes, "If we were honest we would admit that most users and developers aren't consciously 'choosing' they are going with the default. If they really had to choose, how would they do that and would they choose us?" Similarly, while negotiating with Samsung on home screen exclusivity, Google stated that "limits discoverability for Amazon."

- Google apps, some of which are by contract non-deletable, and to provide them preferential placement on device home screens or the very next screen. In 2009, Google required the preinstallation of about a dozen Google apps. By 2013, it required two dozen. Today, it requires the preinstallation of up to 30 Google apps. These preinstalled apps crowd out other apps, including other app stores.
- 119. Third, because Google Play Services is bundled with the Play Store, most of the top apps in a third-party store would not work, because they would lack basic functionality, security updates, and other services. Thus, Google Play Store must be on a device for apps to function, even if there are other third-party stores.
- 120. As a sweetener for the entry of a MADA, those parties are offered RSAs that give them a share of Google's advertising and Play Store revenue from Android phones they distribute. The agreements also require parties to refrain from competing against Google, and refrain from acts that Google would determine is a violation of vague requirements that Google sets and related and changing agreements.
- Android. Google thought of the RSA as a means to address the "challenge" of carriers and manufacturers who may want to create their own app stores. Google's goal was to "incentivize partners to drive developer and user communities towards Android Market [the predecessor to Google Play Store]." Early RSAs Google entered with carriers and developers, when Google was gaining market share, were exceedingly generous to them. Google would give 70% of the revenue from a given purchase to the developer, 25% to the carrier, and 5% to Google for its "operating and transaction costs." Google also gave separate revenue shares to other manufacturers and carriers through Mobile Search RSAs, and they shared revenues from the Google app store with some manufacturers. This was a significant expenditure to Google: by 2016, Google was spending 15% of its total search distribution revenue on RSAs. In return for these generous revenue shares, Google has at times prohibited the preloading of competing app stores.

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arrangements. By mid-2019, Google recognized that "Android dynamics changed" and that "Play revenue" faced "higher exposure." As a result, Google offered even higher revenue shares in a "Google Forward" agreement in return for Google Play Store exclusivity. 123. Google was particularly concerned with Samsung by 2019. The Utah AG Action

To protect its market share, Google developed even more generous revenue sharing

quoted internal documents from Google stating that Samsung was "the only OEM with sufficient share to plausibly build its own store in key Play markets." This is because Samsung is the dominant manufacturer of Android devices in the United States, accounting for 60% of Android devices in the country and an even higher proportion of premium Android devices. Thus, Google felt threatened when Samsung began to redesign its own app store, the Samsung Galaxy Store. This threat became more credible when Samsung partnered with Epic Games in 2018 for Epic Games to launch the mobile version of its hit game, Fortnite, exclusively on the Samsung Galaxy Store, which Google estimated cost Google (through Epic Games bypassing the Play Store) \$300 million. Furthermore, Samsung was attempting to reach similar exclusive deals with other popular app developers, and it was thinking about placing Samsung Galaxy Store on its home screen.

124. Google reacted to this competitive threat on two fronts. In "Project Hug," Google focused on working with top app developers. In "Project Banyan" (later "Project Agave"), Google sought to buy off Samsung from its own app store ambitions.

125. "Project Banyan" involved a payment to Samsung that Google estimated to be higher than Samsung's immediate economic benefits from additional app distribution but lower than Google's revenue loss from increased competitors. In return, Google wanted Google Play Store exclusivity on the default home screen, and the adoption of Android game device standards devised by Google. Google also offered to partner with Galaxy Store in delivering apps to users, promoting Samsung-exclusive content, deals, and events on Google Play Store and YouTube, integrating Galaxy Store as an AdMob advertising publisher (so that Samsung would not have an incentive to build its own ad sales team to directly interface with developers).

offer was too low. Google employees wanted to keep information about Google Play Store away from Samsung because the economics would induce Samsung to speed competition, so they emphasized to each other to "avoid divulging Play business economics and YoY growth." As a result, Google preferred to negotiate a fixed dollar amount with manufacturers rather than a percentage, to avoid the "optics of a small percentage" figure and the "financial impact of small percentage point increases." But knowing that Samsung would probably want a Play Store revenue percentage, Google sought to combine Samsung's Search revenue share with its Play Store revenue share in a single number to "obfuscate Play business margins." This soon morphed into Project Agave, where the focus was on paying Samsung a percentage of net revenues, which disincentivized Samsung from seeking to grow the Galaxy Store. Google would also co-brand certain Galaxy Store apps with Google Play, which would essentially make Samsung Galaxy Store a white label for Google's app distribution services.

127. Google, in "Project Hug" also sought to incentivize app developers to stay in Google Play Store, since it anticipated that a few top app developers defecting could "create disintermediation threats to Google Play and Android." Google thought that Epic Games's decision to go to Galaxy Store had a "downstream impact" of "550M (up to \$3.6B) potential revenue loss if broad contagion to other developers." And for Google, the worst-case scenario was that "Fortnite may legitimize 'Samsung' store & 3rd party stores; fragmenting app distribution on Android." Google was also concerned that discontented app developers could draw regulatory scrutiny to Google.

128. Google internally saw Project Hug and Banyan/Agave as complementary, all as a part of one strategy to combat "growing reach of 3P stores." And Google saw Project Hug as an "insurance policy" that allowed Google to "hold the line on 30%" commissions in the Google Play Stores. By the end of 2020, approximately 20 top app developers accepted Google's terms in Project Hug.

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- 129. Google also prevented app developers from advertising their sideloading options through Google's advertising properties. Google's App Campaigns program allows developers to promote apps through advertisements on Google properties such as Google Search, YouTube, Discover on Google Search, and Google Display Network. But the App Campaigns is limited to app developers who list in Google Play Store.
- 130. Google also uses ominous warnings to prevent sideloading, i.e., downloading apps outside of the App Store. When an app is being downloaded off the app store, Google will have a pop up with a warning about "download[ing] apps from unknown sources" that put one's "phone and personal information . . . at risk." The warning continues that "Your phone could get damaged or lose data" and "Your personal information could be harmed or hacked."
- A 2018 presentation to senior executives that the Utah AG Action quotes shows how Google is aware that the barriers to sideloading lead to a "poor user experience" because it leads to "15+ steps to get app vs 2 steps with Play or on iOS."
- 132. Moreover, as Amazon has told the Utah Attorney General, Google has made it difficult for an Android phone user to download an alternative app store. The user would have to first navigate to and change Android's "Unknown Sources" setting to allow installation of apps from sources other than Google Play Store. When that setting is marked for change, Google displays a warning that the user's device and "personal data are more vulnerable to attack by apps from unknown sources" and that the user is "solely responsible for any damage . . . that may result from using these apps."
- 133. Google knows that it is misrepresenting the risk. A 2015 presentation to manufacturers states that "potentially harmful applications" constitutes only a fraction of a percent of all app installations and that the low security risks mean that "some of the third-party security services that are required on other platforms" such as anti-virus and anti-malware software "are not necessary on Android." Instead, "the single largest threat to Android security" came from manufacturers' not updating users' devices with security patches.

- 134. Furthermore, a 2018 Google white paper states that potentially harmful applications are present on "only 0.08% of devices that exclusively used Google Play" and "0.68% of devices that installed apps from outside of Google Play." Thus, Google itself knew that less than 1% of devices that installed apps from outside Google Play Store had potentially harmful applications.
- 135. Google publicly represents that it "analyzes every app that it can find on the internet" and would categorize a subset of them as "Potentially Harmful Applications." But then Google would mark even well-known apps such as the Amazon Appstore as an "unknown app." And Google issues these warnings despite how it touts its ability to scan "more than 100 billion apps every day," and therefore, it should know which apps are truly "unknown" or potentially harmful. Furthermore, Google tells users that Android is "secure to the core" and "we guard each app at the operating system level, so other apps won't snoop on what we do." Yet, despite having all of these security measures, Google maintains a blanket "unknown apps" warning to misleadingly discourage users from downloading apps from outside Google Play Store.
- 136. If a user still continues to download an app despite Google's alarmist warnings, Google makes it difficult to update sideloaded apps. Unlike apps from Google Play Store, sideloaded apps do not update in the background: instead, a user has to manually approve every update through multiple steps.
- 137. Google specifically created barriers to prevent app developers from distributing apps outside of Google Play Store. For example, the Utah AG Action quotes how, regarding Epic Games's efforts to launch *Fortnite* as a direct download, internal communications that Google "knew" that "install friction" Google created regarding sideloading "is not only a bad experience" for users but would also "drastically limit [the game's] reach." Moreover, "future updates will be challenged re: targeting, update experience via web" and "the approach will create significant user confusion[.]"
- 138. Google also internally discussed whether Amazon's app store could be distributed viably via a sideloading process and discussed the difficulty of having the app installed manually. Google internally discussed how the users would not "get a silent install" but would "still need to

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click on 'INSTALL' to confirm. The only way to install directly without this dialog is to have a system permission (like Play does, or FB installer). Non system apps can't get this permission."

- 139. Google would even have warnings where the rival app store is independently adjudged to be safer than Google Play Store. According to the Utah AG Action, an independent study of Android app stores published in 2017 ranked Aptoide as the safest among the Android app stores analyzed, and even safer than Google Play Store. But Google offered the same warning regarding installing Aptoide as it did for other apps that are downloaded outside Google Play Store: "This app can download potentially harmful apps" with a "KEEP APP (UNSAFE)" warning versus an "UNINSTALL" button. Furthermore, Google actually removed Aptoide from users' phones without their knowledge, according to the Utah AG Action, which led to Aptoide losing 15%-20% of its user base between 2018 and 2019.
- 140. Google's technical obstacles were successful, as an internal 2016 study, according to the Utah AG Action, showed that "only a negligible percentage of Android app downloads in the United States were sideloaded."
- 141. Through its dominant position on Android devices, Google Play Store has achieved a monopoly on Android devices because there are two major mobile operating systems, iOS and Android, and Apple runs iOS as a closed system and so while Apple keeps others out, it also does not encroach on others' territory.
- 142. Through these anticompetitive tying arrangements and payoffs of potential competitors, Google is able to maintain a monopoly position and charge monopoly prices in the Google Play Store. Using its dominant position, Google charges exorbitant commissions on Play Store. Google charges developers 30% fees to even be in the Play Store. Then Google charges another 30% commission to customers for all Play Store purchases.
 - 143. Harms that Google has caused include:
 - Google's lock on Android app stores stifles innovation. For example, Amazon had created an innovative model of app distribution and monetization through Amazon Underground, which allowed Amazon to pay developers directly

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based on how much time consumers spent with the apps. However, Amazon Underground was closed down because it could never get off the ground, having faced Google's restrictions in sideloading.

- b. Consumers face increased prices and reduced output. For example, by comparison, Google charges only fees of 5% in the Chrome Web Store for app downloads. However, consumers pay 30% commissions to Google on Google Play Store. And the high commissions also discourage app developers from even offering apps, thus reducing the options available on Google Play Store.
- c. Developers are harmed by how consumers are less likely to purchase apps because of the high commissions. Thus, the developers' overall profits are reduced. Developers also have fewer distribution mechanisms because Google has stifled these alternative distribution channels through their anticompetitive agreements with manufacturers, carriers, and other developers, and through Google's technical barriers.
- 144. Furthermore, Google has also furthered its monopoly by forcing developers and users to use its own in-app payment ("IAP") processing. As a condition for distribution through Google Play Store, Google requires app developers to exclusively use Google Play Billing to process all in-app purchases of digital content. In other words, Google ties Google Play Billing to the Google Play Store.
- 145. The tying is found in the DDA because it requires app developers to enter into a separate agreement with Google Payment to use Google Play Billing for all digital content sold in apps downloaded through the Play Store. And developers cannot "lead users to a payment method other than Google." This prohibition includes links to a website or other service as an alternative payment processing method: "Within an app, developers may not lead users to a payment method other than Google Play's billing system. This includes directly linking to a webpage that could lead to an alternate payment method or using language that encourages a user to purchase the digital item outside of the app."

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146. Google Play Billing, with its 30% commission, is multitudes higher than third-party payment processors. For example, PayPal and Braintree charge fees of 2.9% + 30 cents to the dollar. Android developers often choose to use a competitor, as well, for payment processing when they are allowed. But Google's tying of its IAP to Google Play Store has made the options Android developers have to use cheaper services very limited.

- 147. Google's share of the IAP market is over 90%, consistent with its market share for Android app distribution.
- 148. Furthermore, Google has acknowledged that its 30% commissions for IAP and for app downloads is not based on a legitimate economic business reason. Rather, it simply copied Apple, which charged 30% (and is also a monopoly in its exclusive iOS system). One employee, according to the Utah AG Action, answered the question of "where does the 30% rev share number come from" responded "pretty sure Steve Jobs just made it up for itunes." And the Utah AG Action quotes "internal meeting minutes" that notes "We would probably have a stronger backbone if we felt secure about the value exchange" for the 30% commissions.
- 149. Furthermore, Google has used its IAP monopoly as a stick against competitors. For example, Google initially offered more favorable pricing for Netflix, Hulu, Spotify, and other steaming services. But starting in September 2020, Google stopped exempting "digital content that may be consumed outside of the app itself (e.g., songs that can be played on other music players)." Google claims that this is not a real policy change but merely a "clarification" of a "long standing policy." Google now claims that to conform with its new policy, a service must either (1) offer an Android app in which consumers pay 30% commissions to Google for subscriptions purchased through the app; or (2) offer a "streaming only" version of the app in the Google Play Store, which under Google's terms cannot inform consumers of the option to purchase a subscription elsewhere or direct them outside the app for payment.
- 150. Google had previously used revenue sharing and assurances Android and Google Play Store predecessor Android Market would be an "open system" to gain market share so that it could later impose terms. For example, according to the Utah AG Action, a Google executive told

a Samsung representative in 2009 that while Google "believe[s] that a single 'app store' is an essential piece of the strategy to make the overall Android ecosystem successful," Google is "putting significant investment into making Android Market that single *open* distribution system. That will maximize distribution and revenue to developers, maximize the applications available to every Android-compatible device, and drive value for the operators (as we will offer revenue-share). Google operates Android Market as a revenue-neutral service—we do not seek to profit off of application sales, and we invest in Market because it is essential to the open ecosystem."

- 151. But in an internal 2010 document the Utah AG Action cited, Google was "giving up control [as] a key component of operators adopting Android" to counter an image of how "Google was historically seen as a threat to operators[.]" But at the same time, Google was figuring out how, "If we gave [Android] away, how can we ensure we get to benefit from it?" and the answer was "We created the first app store for Android and it got critical mass quickly. The store now has value and partners want access to it because of the number of apps available." Therefore, Google sought to use the app store to "Own the ecosystem." And to own the ecosystem, Google would "Set the rules." Google soon made its intentions clear, launching the Google Play Store in 2012.
- 152. And in 2019, Google retrospectively saw that "The novelty of smartphones and apps, combined with a material utility advantage relative to the Web, gave Apple and Android an opportunity to define new closed Internet ecosystems. These new closed ecosystems "centralized Content distribution via app stores" and "payments via app store services."
- 153. Google is currently facing numerous private civil actions, as well as a state Attorney General action led by Utah, into its anticompetitive conduct in the Play Store.
- 154. One heated private lawsuit is the one filed by Epic Games against Google.⁴ Indeed, Epic Games claims in its lawsuit that it "does not seek monetary compensation" or a "side deal"

See Epic Games, Inc. v. Google LLC, Case No. 3:20-cv-05671 (N.D. Cal. 2020) ("Epic Games Action").

or "favorable treatment from Google for itself. Instead, Epic seeks injunctive relief that would make good on Google's broken promise: an open, competitive Android ecosystem for all users and industry participants. Such injunctive relief is sorely needed." In addition to allegations that are also in the Utah AG Action, Epic Games details actions Google has taken against it specifically.

- 155. Epic Games makes specific allegations about how Google stops manufacturers from allowing Epic Games to sell directly on their devices without going through Google Play Store, because Google invoked their agreements with those companies to prevent them from bypassing the Google Play Store. Google stopped at least two manufacturers from completing such deals with Epic Games.
- 156. Furthermore, as Epic Games makes clear, because Google forces developers to use Google Bill Pay, Google is the first to collect payment – not the app developer – and is able to take a 30% cut before remitting the remaining 70% to the developer. This is 10 times the rate for other electronic payment solutions, such as PayPal. And Google is also able to collect the personal information of users, which it then uses to an anti-competitive advantage in its own advertising services and mobile app development.
- 157. Epic Games has attempted to offer for its users a direct payment option for Fortnite products, which Epic Games has told users would cost \$2.00 less than Google Play Store (\$7.99 versus \$9.99). But Google retaliated by removing Fortnite from the Google Play Store, and stopped Android users who acquired Fortnite from Google Play Store from obtaining app updates, which they would need to continue playing with others.
- At the same time, Google has attempted to buy off Epic Games by offering it preferential terms on side deals, such as on YouTube and Cloud, if Epic Games would agree to distribute Fortnite in the Google Play Store and be subject to Google's 30% cut. Google has reached similar deals with other mobile developers, such as Activision Blizzard, through its Project Hug initiative.

- 159. Furthermore, according to testimony from Charlotte Slaiman of Public Knowledge, the *platform* has the discretion to show what apps and what functions the apps have to the user, which further gives companies like Google power.
- According to the Epic Games Action, a 2017 internal Google report confirms that Google "Play Store dominates in all countries." And Google in 2016 recognized that only 4.4% of Android app downloads in the United States are from outside Google Play Store. Even the largest "independent" app store outside of China, Aptoide, is preinstalled on no more than 5% of Android mobile devices. And because of Google's anticompetitive conduct, Google Play Store is able to offer over 3 million apps. Aptoide, the next largest Android app store, has only about 700,000 apps. The largest number of apps in turn helps Google entrench its position because of the strong network effects of a huge app ecosystem.
- 161. Epic Games's lawsuit shows that Google took many actions specifically to protect its monopoly against erosion by Epic Games. In 2018, Epic Games decided to launch *Fortnite* on Android but via direct download rather than Google Play Store. It also entered an agreement with Samsung to have *Fortnite* be available via Samsung Galaxy Store.
- 162. According to the Epic Games Action, around this time, Google's Finance Director for Platforms and Ecosystems prepared a presentation for Alphabet's CFO regarding the "contagion risk" from other "powerful developers" such as "Blizzard, Valve, Sony, Nintendo" bypassing Google Play to "go on their own" because of *Fortnite*'s launch on Android. Furthermore, Google worried about other "major developers" such as Electronic Arts, King, Supercell, and Ubisoft choosing to "co-launch off Play" and eventually "[a]ll remaining titles co-launch[ing] off Play." Google calculated that a "conservative" estimate for revenue loss would be \$50 million through 2021, and possibly up to \$3.6 billion. Google recognized that the "[r]ecent Fortnite + Samsung partnership further amplifies risk & urgency of [the] problem" facing it of potential exit from Google Play. And in 2019, Google recognized that it would "most likely" lose \$350 million from developers migrating to the Epic Games Store, with a "max risk" of \$1.4 billion by 2022. And it estimated a combined loss of \$1.1 billion to \$6 billion "if other stores," such as Samsung and Amazon's, "gain full traction."

- 163. According to the Epic Games Action, Alphabet's CFO participated in a July 2018 "off-cycle" meeting of its Business Council to deliberate Google Play getting approval for a "partnership with Epic Games worth up to \$208M (incremental cost to Google of \$147M) over 3 years." And notes from the meeting recognized that Epic Games was choosing to distribute Fortnite off Google Play "to express frustration [about] closed ecosystems (iOS, consoles) through use of [direct downloading] on Android to distribute via their website" and that would "threaten Play revenue (\$130M) and [the] broader business model." (Brackets in Epic Games Action complaint). Google wanted to give Epic Games a special deal to avoid "High risk of contagion" with "up to \$310M in revenue at risk." When a Google executive asked for "the exact Play store rev share if we can get to the deal with them," a Director of Finance responded that the "key premise of this proposal is that we would protect the rev share terms and hold them at the 70/30 split in line with our current business model to ensure we don't establish a precedent that puts at risk our broader ecosystem." This would mean an additional revenue share to Epic Games of about 5 percentage points, so Google would get a 25% cut of the revenue instead of its 30% share. The Business Council approved the offer.
- 164. Google also appeared to have told Epic Games that direct downloading of *Fortnite* was "frankly abysmal" and "an awful experience" and that Epic Games should "worry that most will not go through the 15+ steps."
- 165. But Google also recognized that Epic Games might not accept Google's offer and they internally discussed "a potential alternative" to approach Tencent to "buy Epic shares from Tencent to get more control over Epic" or "join up with Tencent to buy 100% of Epic." And another senior Google executive suggested that Google could "lock down Play/Android" and simply not "allow sideloading (or make it very hard to sideload (policy position or even architecture) [but it would be a] difficult move in the face of the [European Commission ("EC")] decision but we have good privacy/security arguments about why sideloading is dangerous to the user)."
- 166. Epic Games rejected Google's deal, but Google then sought to find ways to undermine it by collecting "exciting" statistics on "fake apps caught by" Google Play "from off-Play downloads" to leak to journalists but did not share the numbers with Epic Games or users.
- 167. In 2019, to head off the threat from Epic Games's independent growth, Google offered manufacturers the chance to participate in its "Premier Device Program" this offered powerful financial incentives such as an additional 4% of Google's Search revenues earned on

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covered devices (on top of the 8% Search revenue shares that manufacturers already got from standard RSAs) and monthly bonuses (as well as, for some devices, 3%-6% of "Play spend"), but in return required "Google exclusivity and defaults for all key functions: No apps with APK install rights" on Premier devices. Google has also used similarly restrictive MIAs with manufacturers that require Google exclusivity – including Google Play Store exclusivity – in return for monthly incentive payments.

Device Program that it had successfully eliminated the "risk of contagion." By May 2020, many of the world's most popular manufacturers of Android devices – including Motorola and LG, who received extra financial incentives – had agreed to Google Play exclusivity. But Google also sought to conceal the existence of these agreements by prohibiting signatories from making "any public statement regarding" the agreements "without the other party's prior written approval." In litigation against Epic Games, Google at first sought to argue that manufacturers are not prohibited from "pre-installing alternative app stores," and these agreements only came to light as a result of plenary discovery in the Epic Games Action.

169. The Epic Games Action also provides further unredacted details about Google's attempts to keep Samsung in the tent. In April 2019, Google executives traveled to Korea to discuss an "app distribution" proposal with Samsung. Google's Business Council was kept apprised of the proposal: that Google Play Store and Google Play Billing would provide "infrastructure support to Galaxy Store" and that Google Play Store would host the apps and games nominally distributed by the Galaxy Store. This would make Samsung "forgo store services revenue," but Google would compensate Samsung with annual payments of up to \$60 million, which was Google's maximum estimate of the Galaxy Store's "operating profit" but a small fraction of the "likely 2022 margin risk to Play." Google also sought to have Samsung agree that "Play and Galaxy Store" would be the "only app stores on Default Home Screen." These measures, in conjunction with Project Hug, would "mitigate[] risk that top game developers de-prioritize Google Play for title distribution" and secure "Play revenue / margin at risk" of "up to \$6B / \$1.1B in 2022." Samsung in turn sought to include its own billing payment process, which Google opposed, and sought to dissuade Samsung from that path by proposing to request that Samsung share its revenues or pay a license fee for Google Play, or alternatively, offer revenue share to Samsung if it would not use its own IAP platform.

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170. Furthermore, the Epic Games Action provided further details of Project Hug, which was "a hug developers close and show love plan" and "a surge plan to throw extra love/promotion to top developers and games (including Tencent portfolio companies)." As explained to Google's Business Council in 2019, in the same presentation for Project Banyan, in Project Hug Google would spend hundreds of millions of dollars with over 20 developers that were "most at risk . . . of attrition from Play" to prevent developers from competing with Google Play and causing the "contagion" that Google feared. Google told its and Alphabet's senior executives that Project Hug developers were "[a]gitated or inquired about revenue share" and had considered having their own distribution or payment platforms. The Business Council approved Project Hug and Google signed deals with most major developers it targeted by December 2020.

In a similar action against Apple, the Court ruled that Apple must allow apps to include third-party payment processors because its anti-steering provisions violate the Unfair Competition Law in California. Apple's anti-steering provisions include "buttons, external links, or other calls to action that direct customers to purchasing mechanisms other than in-app purchase," and from "encouraging users to use a purchasing method other than in-app purchase" that is "within the app or through communications sent to points of contact obtained from account registrations within the app (like email or text)." Furthermore, "developers cannot communicate lower prices on other platforms either within iOS or to users obtained from the iOS platform. Apple's general policy also prevents developers from informing users of its 30% commission." The Court ruled, "In the context of technology markets, the open flow of information becomes even more critical. As explained above, information costs may create 'lock-in' for platforms as users lack information about the lifetime costs of an ecosystem. Users may also lack the ability to attribute costs to the platform versus the developers, which further prevents them from making informed choices. In these circumstances, the ability of developers to provide cross-platform information is crucial." Furthermore, "the Supreme Court has recognized that such information costs may create the potential for anticompetitive exploitation of consumers." Thus, "the antisteering provisions violate the 'policy and spirit' of [antitrust] laws because anti-steering has the effect of preventing substitution among platforms for transactions." As a result, the Court enjoined

Apple, nationwide, "from prohibiting developers to include in their: Apps and their metadata buttons, external links, or other calls to action that direct customers to purchasing mechanisms, in addition to IAP." Furthermore, Apple is enjoined from prohibiting developers from "Communicating with customers through points of contact obtained voluntarily from customers through account registration within the apps."

- 172. These anti-steering claims are almost identical to what is alleged against Google. Google also prohibits developers who sign the most restrictive agreements from using or so much as informing other users of other payment options. Instead, Google forces its users to use its IAP. Epic Games is suing Google for what amount to almost identical violations in the IAP market, and therefore, it is very likely the Court will soon find Google to be liable.
- 173. Google Play Store earned \$11.2 billion in 2019. And according to the House Report, internal documents show that between 2011-2015, the Play Store contributed 85% of Google's total revenue from the Android ecosystem (operating system, hardware, and Play Store). Thus, Google has every incentive to maintain and further entrench its monopoly on the Play Store, as one of its extremely profitable businesses.

C. Google Leveraged Its Dominance in the Digital Display Ads Market

- 174. In addition to the dominance it achieved through Search, Google has also achieved dominance in the digital display advertisement market. It has achieved this dominance through key acquisitions that put it in command of both the buy and sell sides in the online ad market and used its dominance to head off potential rival systems.
- 175. Digital display ads are unlike search ads. While search ads are based on keywords or search terms, and are typically text based, digital display ads are essentially the Internet version of traditional advertisements in newspapers. Altogether, Google makes about \$161 billion per year, almost all from advertising.
- 176. Google's dominance in digital display ads is such that nearly all of today's online ad publishers depend on it as their middleman to sell online display ad space in ad exchanges, which are like stock exchanges, but for ads: they are electronic trading venues that buy and sell ad

inventory. Google operates the largest exchange, AdX. AdX dwarfs the financial exchanges, matching magnitudes more trades than NYSE and NASDAQ do per day. Google also owns the largest buy-side and sell-die brokers. As the Texas AG Action⁵ states, "Google is pitcher, batter, and umpire, all at the same time."

- 177. At a Congressional hearing, Pichai sought to downplay the conflicts of interest that were pointed out to him by claiming that the advertising intermediary work was a "low-margin business" that Google undertakes "because we want to help support publishers." But as the House Report pointed out, Google's margins in this business have averaged 20% for nine out of the last 10 years.
- 178. Online publishers and advertisers depend on several products to buy and sell ads on the Internet. Publishers depend on an ad server, which manages and helps sell their inventory. Advertisers need ad buying tools to act as a middleman to buy display inventory from exchanges. And publishers and advertisers meet, often via intermediaries, in marketplaces that match sellers (via ad networks) of ad space with buyers (via ad exchanges). Google is dominant in each of these areas.
- 179. Large publishers, such as ESPN, Weather.com, or NPR, use ad servers to manage their ad inventory and help them sell that inventory either directly or indirectly via ad exchanges. A publisher will typically use a single ad server to manage all of their display inventory. Ad servers perform three critical functions.
 - a. First, the ad server identifiers the users visiting the publisher's webpage, and tags each unique user with a unique user ID. This helps publishers, ad exchanges, and advertisers know the identity and characteristics of a particular user. This helps an advertiser place a value on the ad space that the user will see. Ad servers also help with "attribution," which is when they track what subsequent actions a user takes after viewing an ad.

b. Second, the ad server helps publishers sell ad space indirectly through ad exchanges. Ad servers connect with multiple marketplaces and let publishers automatically route inventory to these marketplaces. The ad server, therefore, controls how different marketplaces access and compete for a publisher's inventory.

- c. Third, ad serves route inventory between a publisher's direct and indirect sales channels, including routing to the most high-value users.
- 180. Because of their role as a middleman, ad servers can be a choke point. They can interfere with a publisher's ability to share full information with exchanges, or prevent a publisher from understanding how their inventory performs in one exchange versus another. Publishers depend on transparency, which ad servers would have an incentive to provide if there were many of them.
- 181. But Google has decreased transparency in the ad server market by acquiring the dominant ad server in 2008, DoubleClick, and then acquiring and integrating AdMeld in 2011, which has technology that helps publishers efficiently route inventory to exchanges and networks. Google's ad server rebranded as Google Ad Manager ("GAM") controls 90% of the ad server market because almost every major website uses it.
- 182. The DoubleClick acquisition was significant enough for Google's Board to discuss it on April 12, 2007. Six of the current directors, which constitutes a majority of the current Board Brin, Page, Hennessy, Mather, Shriram, and Doerr were on the Board then. Schmidt "called the meeting to order and discussed the general background of the potential acquisition[.]" GOOG-BC-SHD-00001197. Susan Wojcicki (today the CEO of YouTube) and Tim Armstrong (now at Verizon) "discussed with the Board the strategic rationale for, and the risks associated with the proposed acquisition and addressed among other thing: (i) DoubleClick's business and ad serving products; (ii) Google's efforts to enter into digital advertising and what it would take to grow Google's display advertising business; (iii) a discussion of the competitive landscape for adserving as well as display advertising; and (iv) a review of the status of Google's internal ad-

serving products. Management also discussed the potential impact the acquisition may have on Google's brand and public perception of Google given DoubleClick's history and reputation." *Id.* at 1198. Schmidt "provided the Board with final thoughts and management's recommendation that the Board approve the DoubleClick acquisition." *Id.* at 1200. Thus, the Board minutes show that management and the Board pushed for an acquisition of DoubleClick to gain market power in the digital display advertising business despite known antitrust concerns.

- 183. A few years later, the AdMeld acquisition was presented to the Board as a fait accompli. Rather than call a Board meeting to approve the acquisition, directors were merely asked to submit their written consent for approving the acquisition. GOOG-BC-SHD-00001327 (June 11, 2011, written consents for approving acquisition of AdMeld, including the redacted acquisition price); GOOG-BC-SHD-00001445 (December 11, 2011, written consent to approve amended AdMeld merger agreement).
- 184. The second major choke point is ad marketplaces, through exchanges and networks. Most large publishers use ad exchanges, while small publishers use ad networks, and Google dominates both those markets, as well.
- 185. Ad exchanges are real-time online auction marketplaces that match multiple buyers and sellers, and the entities that have a "seat" to bid on exchanges are akin to stockbrokers in that they represent but are not the actual advertisers. The exchanges do not bear inventory risk because they serve as intermediaries, connecting publishers' inventory with willing buyers in real time. But to sell in exchanges, a publisher must meet minimum impression or spend requirements. Ad exchanges earn revenue by charging a percentage of the transaction value, which is around 5%-20% of the inventory's clearing price.
- 186. Google owns the largest display ad exchange in the United States, called Google Ad Exchange or AdX, and is open only to publishers with 5 million page views or 10 million impressions per month. AdX has been dominant in the ad exchange market since at least 2013. AdX charges publishers approximately double to quadruple the prices of its competitors. As the Texas AG Action mentions, proof of Google's dominance can be found in how its transaction fees

are much higher than those of its nearest competitors. Google's fees are also much higher than a stock exchanges. Moreover, Google increased its rate between 2017 and 2019. And Google does not lose market share even when its competitors drop prices.

Ad networks, like ad exchanges, match publishers' inventory with advertisers' demand, but unlike exchanges, do not require high monthly minimums. But networks also often refuse to accept bids from ad buying tools for large advertisers. Networks also obscure the prices within auctions, so neither buyers nor sellers know what percentage of the transaction they actually take. Networks also take inventory risk because they purchase and sell impressions on their own behalf. Google operates the leading web display network, Google Display Network ("GDN"), which it makes accessible to only advertisers who use Google products to buy publisher ad inventory. Google also owns AdMob, which it acquired in 2010, the largest mobile app ad network (Google's largest competitor there is Facebook's Audience Network, or "FAN"). According to the Texas AG Action, in 2016, an internal conversation between Google executives had them admitting to its market power.

meeting on November 5, 2009. Google code named it "Project Brando" and Schmidt told the Board that it was a "private company whose primary business is mobile advertising." GOOG-BC-SHD-00001226. Another executive then "reviewed the background of the deal and walked the Board through AdMob's current business model, products, revenues, income, and advertising base. He discussed the long term and short term goals of the transaction and how the integration would be managed. [He] also highlighted other players in the market possibly interested in acquiring AdMob or competitors of AdMob." *Id.* at 1226-27. Other executives provided the Board "the strategic rationale of the transaction. They highlighted the potential growth the transaction could provide to Google's mobile advertising efforts and the leadership AdMob's CEO and management team could provide to Google's efforts. They also reviewed Google's strategy in this area and generally discussed challenges and opportunities associated with this industry." *Id.* at

1227. In-house counsel "reviewed legal and antitrust issues for the Board." *Id.* Finally, Schmidt provided the Board with management's recommendation to approve the acquisition. Five of the current directors (Page, Brin, Doerr, Hennessy, and Mather) were at this meeting, where the Board learned in-depth of the strategic importance of AdMob to Google's business, and even though Shriram was absent from the meeting, it is reasonable to infer that he would have been informed because of his key role as a Google investor and early Board member.

189. Google's Board also found out that the Company was willing to use pressure tactics to secure regulatory approval. Apparently, Google's attempts to acquire AdMob were questioned by the Federal Trade Commission ("FTC"), which was concerned about competitive harm. In a July 14, 2020 "Confidential Memo" from "Google Management" to the "Google Board of Directors," the Board was informed: "In the US, our work with AdMob to push blog posts from supportive app developers culminated in a Wall Street Journal story on the eve of the vote echoing questions around the FTC's theory of harm. Just a few days later, the FTC approved our deal." GOOG-BC-SHD-00001206, 1222-23. Thus, the Board knew that there were serious antitrust concerns with the AdMob acquisition, and Google's method for addressing those concerns was to pressure the regulatory to back off. A majority of the current directors were on the Board in 2010: Page, Brin, Hennessy, Doerr, Shriram, and Mather.

190. Finally, analogous to how publishes use ad servers, advertisers use ad buying tools, such as demand-side platforms ("DSPs") that Google analogizes to "brokerage houses" to "pick stocks." While DSPs are used by larger advertisers, because they require monthly spending commitments, Google's buying tool for smaller advertisers, Google Ads, does not require any monthly minimum spend.

191. The ad servers and ad buying tools have their respective sides' "seats" to bid on exchanges. When a user visits a publisher's website, the ad server routes the publisher's available impressions to exchanges, along with associated information such as the user's ID, the ad slot's parameters, and any rules about pricing. Each exchange then sends a "bid request" to the ad buying tools who have a "seat" to bid in the exchange and act as advertisers' middlemen. These bid

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requests contain information about the impression and convey a "timeout" by which time the advertisers have to respond with their "bid response," which is typically a fraction of a second. The ad buying tool, during that time, needs to unpack the information in the bid request, organize the personal information about the user, determine a price to bid on behalf of the prospective advertisers, and return a bid response to the exchange. When the time expires, the exchange closes the auction, excludes late bids, and chooses the winner. To effectively compete in the auction, the ad buying tools must be able to identify relevant characteristics of the user associated with each impression. Exchanges can affect which bidders will have success by controlling what information to give to each and how much time they have to bid (*e.g.*, through longer timeouts so a bidder has more time to calculate and return bids).

192. Google operates the largest ad buying tools for both large and small advertisers. Google acquired the DSP Invite Media, and turned it into its own tool called DV360, which is the largest ad buying tool for large advertisers. Google's ad buying tool for small advertisers is called "Google Ads." DV360 charges advertisers a percent commission to purchase inventory from exchanges, and Google Ads charges small advertisers a much higher commission when purchasing inventory from Google's exchange. According to the Texas AG Action, Google executives deliberately chose to give preferred access to Google's buy-side middlemen on Google's exchange, such as giving Google Ads and DV360 information and speed advantages when bidding for advertisers, which in turn means Google's ad buying tools win the overwhelming majority of auctions hosted on AdX. Moreover, according to the Texas AG Action, Google's documents confirm that Google's exchange charges anticompetitive fees for exclusive access to Google Ads advertisers. Furthermore, Google further disadvantages its smaller advertisers by processing their bids through two auctions, thus getting paid a bid-ask spread on each, and not disclosing to the advertiser the price that the ad space actually garnered on Google's exchange.

193. Google also has dominance in streaming video advertising through its ownership of YouTube. YouTube's share of the overall online video advertising market is at least 43% in the United States, and it reaches approximately 190 million consumers – including 77% of 15–25-

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year-olds and at least 67% of older demographics. Google's reach thus makes it a "must have" source of streaming ad inventory for advertisers.

- 194. Google engages in anticompetitive conduct to reinforce its dominance in each display ad market area by leveraging its dominance in each area. As demonstrated by the Texas AG Action and the House Report, these anticompetitive acts were perpetrated, approved, or condoned by top Google executives.
- 195. Google established dominance in the ad exchange market, for example, by forcing publishers to license Google's ad server and trade in Google's ad exchange.
- 196. When Google entered the ad exchange market in 2009, there were several existing competing exchanges, such as those funded by Microsoft and Yahoo!. For example, in 2009, Yahoo!'s exchange processed nine billion daily ad impressions. Google also faced significant competition in the ad server market. After Google acquired the ad server DoubleClick in 2008, it faced competition by 24/7 Real Media, ValueClick, and aQuantive (by Microsoft), and others. But Google leveraged its existing strengths in each market to achieve and reinforce dominance in others.
- 197. In the 2008-2009 period, Google already had significant market power among small advertisers because it operated an ad buying tool that they used extensively (over 250,000 small and medium advertisers used this tool in 2009, and over 2 million by 2013). And Google was able to grow Google Ads in part by requiring advertisers to use Google Ads if they wanted to purchase ad space through its ad network, GDN. Google also required small advertisers to use Google Ads to purchase ads on Google Search, where it was already dominant. After acquiring DoubleClick and launching its exchange, Google began to require small advertisers bidding through its small advertiser tool, AdWords or Google Ads, to transact in both Google's ad network and ad exchange. Google also required that large publishers who wanted to receive bids from these small advertisers to trade in Google's exchange and license Google's ad server. And in fact, Google automatically routed small advertisers' ad network bids to Google's exchange. Furthermore, Google refused to

route advertisers' bids to non-Google exchanges. And Google programmed its exchange to return real-time bids only to publishers using Google's new publisher ad server.

198. Google's internal documents, according to the Texas AG Action, showed that this was a deliberate strategy. For example, the Texas AG Action references that a Display Strategy document from 2012 deliberately imposed bid routing restrictions to foreclose competition. And the Texas AG Action also references how Google knew that coupling its ad server with its market power in ad networks prevented publishers from switching to competing ad servers and let Google corner that market, so that the percentage of publishers who used Google's ad server grew substantially between 2011 and 2019.

199. Around 2009-2010, advertising exchanges (including Google's AdX) started to compete with one another by submitting real-time bids for publishers' inventory. But since Google had control over a large amount of publishers' inventory (through its ad network/ad server dominance), it sought to prevent competition between marketplaces by enacting a program, between 2009 and 2016, called "waterfalling," which forced publishers to route ad space to a single exchange, one at a time, rather than all at once. Google also blocked publishers from selling their inventory to more than one exchange at a time, which prevented competition from non-Google exchanges. This allowed Google to charge fees that the Texas AG Action shows that Google internally admitted could not be justified.

200. Moreover, Google used a process called "Dynamic Allocation" that preferentially routed publishers' inventory to Google's then-new exchange because it gave Google's exchange a right of first refusal on all the impressions a publisher made available to exchanges. Google's ad server let Google's exchange compete for publishers' impressions through live bids, while non-Google exchanges had to compete with static non-live bids. Furthermore, Google's ad server would pass a rival's static bid – based on historical prices – to Google's exchange, which could then return a live bid of one penny more. Google adopted Dynamic Allocation in 2010, which ended DoubleClick's role as a neutral seller's agent, and made it a Google partisan. Google misleadingly sold Dynamic Allocation to publishers as a way to maximize the yield on their

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26 27 inventory and therefore, maximize publishers' revenue, but as the Texas AG Action references, internal Google documents revealed that Google knew that it was lying. One internal Google study showed that competition *between* exchanges would increase publishers' clearing prices by an average of 40%.

201. Moreover, Google inhibited information flow to, and information exchange between, publishers. Google's ad server manages publishers' inventory and identifies unique users through individual IDs. In 2009, Google's ad server began to encrypt the user IDs and prohibited publishers from sharing those IDs with non-Google exchanges and non-Google ad buying tools. But Google allows itself to use that information for its own trade decisions.

202. This self-preferencing is against what Google told Congress and the FTC when it sought approval for the acquisition of DoubleClick for \$3.1 billion in 2007. The House Report cites Google's internal documents showing that this acquisition was meant to build market share in the display advertising market and reinforce Google's dominance throughout. A July 26, 2006, presentation quoted by the House Report calculated the value of the display advertising market to be \$4.3 billion and that Google understood that it "has no meaningful presence." Furthermore, another July 2006 presentation stated, "Build a Self-Reinforcing Online Ads Ecosystem" noted that acquiring DoubleClick or Atlas could create "self-reinforcing benefits" for Google's ecosystem, asking "[I]s there some framework we have to demonstrate the synergies/interrelationships from owning all these pieces?" Google assured Congress that DoubleClick's "data is owned by the customers, publishers and advertisers, and DoubleClick or Google cannot do anything with it." Google also represented to the FTC that "customer and competitor information that DoubleClick collects currently below to publishers, not DoubleClick" and that "DoubleClick's contacts with its customers, which those customers insisted on, protect that information from disclosure." Google stated it was "committed to the sanctity of those contracts."

203. But despite its representations to Congress and the FTC (which had to approve Google's acquisition), Google started restricting publishers' ability to access and share their ad server user IDs by hashing and encrypting user IDs differently for each publisher using Google's

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27 28 ad server and for each advertiser bidding through Google's ad buying tools. Thus, the same user would have different IDs on the server versus the buying tool. This prevented publishers, advertisers, exchanges, and networks (other than Google's own) from knowing which different user IDs actually belonged to the same user. But Google shared these IDs with its own network, exchange, and ad buying tools (DV360 and Google Ads) by homogenizing the ID for a unique user.

204. Furthermore, in 2016, Google reversed its earlier commitment and combined DoubleClick data with personal information collected through other Google servers. Congress asked Pichai about his direct involvement in this decision, asking "Did you sign off on this decision to combine the sets of data with—that Google has told Congress would be kept separate?" In response, Pichai confirmed that he "reviewed at a high level all the important decisions we made."

205. Using these information advantages, according to the Texas AG Action, Google then designed various programs that would manipulate the bidding process to maximize its own profits. And according to the Texas AG Action, Google's internal documents showed that prior to the implementation of one such progress, advertisers bidding through competitors' ad buying tools were actually beating the advertisers bidding through Google's ad buying tools, but Google used inside information to trade and reverse this trend.

Google publicly justified its restrictions based on privacy. But this was pretextual 206. because Google's ad server shares user IDs with its own exchange and buying tools. Around July 2015, for example, Google entered an agreement with WhatsApp that allowed Google Drive to create backups of supposedly end-to-end encrypted WhatsApp messages, and in public announcements indicated that these messages remained encrypted. But in a June 2016 memo that the Texas AG Action disclosed, Google knew that it had access to their communications and that it knew this fact would be important to users. Google's concealment contributed to increased demand for its service, so that by May 2017, Google Drive had gained approximately 750 million new WhatsApp backup accounts.

207. Furthermore, Google executives, according to the Texas AG Action, met with other Big Tech executives to discuss competition and stifle consumer privacy efforts. The Texas AG Action cites one closed-door meeting on August 6, 2019, between Google, Facebook, Apple, Microsoft, and one more unnamed company. And the Texas AG Action indicated that in a July 31, 2019, document, Google wanted to use the meeting with the other Big Tech companies to diminish child privacy protections in proposed regulations by the FTC and proposed legislation, as well as coordinate with the other Big Tech companies on a quality metric of privacy.

208. Around 2014, publishers began to adopt "header bidding," which was coding into the header section of their website to direct a user's browser to solicit real-time bids from multiple exchanges. This was a way to prevent Google from front-running and monopolizing exchange bids. By 2016, approximately 70% of major publishers in the United States were using header bidding. Google's response was to, according to the Texas AG Action, seek to "kill" it. The Texas AG Action discussed how Google internally discussed how header bidding was reducing its high fees from its exchanges. Moreover, Google sought to destroy header bidding because of its effect on negating Google's practice of trading on insider information. And Google did not want to lose control over publishers' inventory.

209. First, Google devised an "Exchange Bidding" (later called "Open Bidding") program that ostensibly allowed publishers to route inventory to multiple exchanges at once (the same service that header bidding created), but in reality favored Google's own exchange by decreasing non-Google exchanges' ability to identify users associated with publishers' ad space in auctions because they prohibited exchanges from directly accessing a user's page (*i.e.*, via cookies, as header bidding did). Moreover, Google charged 5%-10% penalties for selling inventories on a non-Google exchange, which therefore made the non-Google exchanges artificially more expensive. Furthermore, Google forced publisher ad server customers to use Google's exchange when routing ad space from Google's ad server directly to multiple exchanges simultaneously (as opposed to allowing publishers to route inventory to only non-Google exchanges). Finally, the Texas AG Action details how Google designed Exchange Bidding to provide Google's exchange

a special advantage that it kept secret so that it could rig the bidding to let Google win. Senior Google employees, according to the Texas AG Action, recognized that these practices were anticompetitive. And according to the Texas AG Action, Google executives pushed to kill header bidding.

- 210. Google faced further pressure when Facebook, Google's largest display ad rival, publicly announced in March 2017 that it would support header bidding. But, as the Texas AG Action shows, this announcement was a ruse by Facebook to induce Google to offer it a better deal, and together rule the display ad market.
- 211. The Texas AG Action quotes (in redactions) Facebook's internal documents showing that it sought to draw Google in, and that Google executives internally discussed their concerns about large competitors like Facebook supporting header bidding as soon as 2016. According to an unredacted draft complaint reviewed by news media, Google advertising executive Chris LaSala stated in an internal 2017 document that Google needed to "fight off the existential threat posed by header bidding and FAN [Facebook Advertising Network]" and that this required "an all hands on deck approach."
- 212. Then in 2017 and 2018, Google and Facebook negotiated an agreement whereby Facebook would withdraw its support for header bidding in return for Google giving Facebook certain bidding advantages. The Texas AG Action quotes an internal Google presentation from November 2017 and August 2018, Facebook's internal emails, and other internal documents from both companies. An unredacted draft complaint reviewed by news media showed that Facebook CEO Mark Zuckerberg was told about its options: to spend billions to compete with Google; exit the display ad business; or do a deal with Google.
- 213. In September 2018, an agreement was reached between Google and Facebook. Facebook then disclosed in December 2018 that it joined Google's Exchange Bidding or Open Bidding program. According to news reporting based on an unredacted draft complaint, Facebook and Google executives were both aware of the antitrust implications of this agreement because the agreement mentioned "antitrust" at least 20 times, and required the companies to "cooperate and

assist" each other if they are investigated for competition concerns over the partnership. According to news reporting based on unredacted draft complaints or other inadvertently unredacted documents, this agreement was signed by Sheryl Sandberg from Facebook (the second most senior officer and a board member) and by Phillip Schindler, Google's Senior Vice President and Chief Business Officer, as well as other executives. Furthermore, Mark Zuckerberg was informed of the details of the contract by Facebook Vice President Dan Rose. In return for Facebook joining Google's Open Bidding program, Facebook had the following advantages and commitments:

- a. Facebook paid a transaction fee of 5%-10%;
- b. Facebook would spend \$500 million annually starting in the fourth year;
- Google would help Facebook recognize mobile and web users (versus those generated by bots) and would not charge Facebook for impressions generated by bots;
- d. Facebook bids to show ads to 90% of users it recognizes;
- e. Facebook would have a 300-millisecond timeout to recognize users and bid, which was more than the 160-millisecond timeout other participants were allowed;
- f. Facebook would be allowed to send bids directly to Google's ad server, rather than through an exchange as other publishers had to; and
- g. Google would not use Facebook's bidding history or bid response data to "reverse engineer" Facebook's strategies or "adjust or otherwise influence in real-time the bid response of another bidder (including Google)."
- 214. The Texas AG Action alleged that this agreement provided the foundation for further collusion by Facebook and Google through the years. For example, they coordinated with each other to adopt Unified Pricing. They have also worked on other projects where Google has helped Facebook's FAN bid and win more often than other bidders in Google's auctions, though

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 Facebook's employees in an April 2, 2019, internal (redacted) discussion appeared to recognize this was anticompetitive.

215. In the absence of their agreement, Google and Facebook would have been competing head-to-head as bidders for publishers' inventory. Google's GDN and AdMob would be bidding against Facebook's FAN, as Google internally discussed, according to the Texas AG Action. But instead, the agreement turned Google and Facebook into partners by manipulating auctions so that Facebook would be favored to win. Facebook's "win" is not to purchase ad space for its own products, but rather it is, through FAN, acquiring impressions to re-sell to small business advertisers who buy their advertising from Facebook. Some of these advertisers do not know that Facebook delivers their ads to non-Facebook websites and apps. This in turn divides the ad market between Google and Facebook. Google and Facebook do not disclose the details of their agreement to other auction participants. Instead, Google publicly represents that "All participants in the unified auction, including Authorized Buyers and third-party yield participants, compete equally for each impression on a net basis."

216. Google also steered exchanges to use Google's ad server and therefore starved off header bidding by telling them that header bidding created a strain on servers. Moreover, Google used its ad server to front run other exchanges. Publishers would route their inventory to multiple exchanges through header bidding, then route the winning exchange bid to the Google ad server. But then Google programmed its ad server to have its exchange bid one more than exchanges through header bidding, which was a widely known practice called Google's "Last Look." And a confidential Google study showed that Last Look protected Google's market power in both ad servers and exchanges, according to the Texas AG Action. The Texas AG Action also states, "Google's internal documents also explain that Last Look ensured that header bidding exchanges lose to Google's exchange."

217. Furthermore, in March 2017, Google pretended to give up its "Last Look" if publishers or advertisers entered its program (instead of utilizing header bidding) by stating that its exchange would no longer trade ahead of other exchanges that bid through Google's Exchange

Bidding. But the Texas AG Action states, "Internal documents reveal that Google simply replaced one version of Last Look for another by using a new technique that allowed Google to continue to jump ahead of rival exchange bids. Specifically, Google deployed a bid optimization scheme based on predictive modeling[.]" Google's "bid optimization" had an advantage over non-Google exchanges because only Google had full access to user IDs.

- 218. Furthermore, the Texas AG Action states that Google employees knew that "Google engaged in deception to undermine header bidding and foreclose[d] competition in the exchange market. . . . Google employees agreed that, in the future, they should find ways to convince publishers to act against their interest and remove competing exchanges in header bidding on their own."
- 219. Moreover, beginning in 2018, Google's ad server started to redact various data fields from the consolidated auction records it shared with publishers, which make it impossible for publishers to compare the relative performance of exchanges in header bidding with the performance of exchanges going through Google's ad server.
- 220. Google also limits the number of "line items" in Google's ad server that publishers can use to receive bids from exchanges. Google internally appeared to discuss publishers' requests to increase those line items but rejected them, apparently because they knew this could help stifle the effectiveness of header bidding, as redacted text in the Texas AG Action implied.
- 221. Furthermore, Google used its power in the search market to stifle header bidding. Google created Accelerated Mobile Pages ("AMP"), ostensibly for developing mobile web pages, and made AMP incompatible with the JavaScript that was required for header bidding code. Ostensibly, AMP is controlled by a foundation, but as the Texas AG Action shows, "Google controls the foundation's board[.]"
- 222. And the Texas AG Action further states, Google ad server employees met with AMP employees specifically to strategize how to use AMP to impede header bidding, including gauging how much pressure publishers and advertisers could tolerate. Google restricted AMP code to limit the number of exchanges they could bid to, while making it fully compatible with

routing to exchanges through Google's ad server, and made rival exchanges bid through Google's ad server, and users uploading AMP pages would communicate with Google's, not publishers', servers. Thus, Google was able to access publishers' non-public user data. AMP pages also limited the number of ads on a page, the types of ads publishers can sell, and what kind of enriched content publishers can have on their pages.

- 223. Meanwhile, Google also claimed to publishers that adopting AMP would enhance page load times. Furthermore, Google employees knew that Google-cached AMP versions of a webpage did not load faster for publishers who designed their web pages for speed. Moreover, the so-called speed advantages were a result of Google throttling non-AMP delays by delaying them by a second to give Google AMP an advantage, which slows down header bidding. Google then made AMP more attractive, despite how it was detrimental to advertisers' revenues, by placing AMP results in the carousel. Thus, Google thus made publishers pick their poison: (1) publishers could use header bidding, with all its search-related disadvantages, and see their traffic get redirected to AMP-compatible publishers; or (2) publishers could adopt AMP to maintain traffic but make less money per impression by foregoing exchange competition in header bidding.
- 224. Furthermore, Google's ad server provided critical data, called "minimum bid to win" (the price an auction participant would have had to bid to win a completed auction), only at the conclusion of each auction with exchanges in its Open Bidding program, but withheld that data from exchanges in header bidding. Exchanges in Open Bidding use the data to adjust their bidding strategy to beat exchanges returning bids through header bidding.
- 225. Google also excludes competition by keeping auction mechanics, terms, and pricing non-transparent. Google obfuscates the rate at which they take fees from publishers or charge to advertisers. Google's own employees offer inconsistent accounts regarding what fees Google charges to small advertisers.
- 226. Google also obfuscates prices for publishers; the Texas AG Action states that publishers selling inventory through Google could receive as little as 58% or up to 70% of the revenue, so that Google has a take rate between 30%-42%. The Texas AG Action indicates that

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"one senior Google employee" uses non-transparency to "charge higher fees at points in the supply chain where there is little competition and the lack of transparency around fees impedes other firms" from coming in to direct compete with Google, since they would not know what prices to charge or returns to expect.

227. Going further than controlling the ad stack, Google has also sought to create a "walled garden" or closed ecosystem for digital advertisements. Its plans have involved its control of Chrome, the largest Internet browse on desktops. Google's internal documents, according to the Texas AG Action, showed that Google sought to extract higher fees by controlling the design of publishers' ad space and then forcing publishers to sell their ad space exclusively through Google's products. Google did this through inducing or automatically logging Google users into Chrome, causing users to log into Chrome even when they expressly logged into only another Google service, such as Gmail or YouTube, and forcing the login to remain because if a user logged out of Chrome, Google would automatically log the user out of every other Google service they were using. By logging in users, Google was able to track how users browsed, which increased Google's ability to sell its own ad space, and circumvent cookie-blocking technologies. Google then offered to give publishers the ability to access Google's deeper trove of user data in exchange for publishers' agreement to give Google exclusive control over their ad space. If publishers did not agree to exclusivity, Google would use Chrome to continue to collect data to sell more ads through Google at the expense of the publishers' ad space.

228. Google only transitioned away from the previous effort when regulatory scrutiny into its practices increased. Instead, Google turned to a "Privacy Sandbox" project. This has involved an announcement of a plan to block third-party cookies off Google Chrome, even though it would continue to allow its own cookies in the browser. This, in turn, would cause advertisers to spend more directly with Google and less on smaller media publishers because Google would have the only effective personal tracking information left, which advertisers find to be most valuable. Non-Google ad buying tools would be starved because they would no longer be able to use cookies to gather consumer information. But Google's ad buying tools would not have this

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handicap because Google grants them exclusive access to user data from Chrome and Android. The Texas AG Action states that some publishers have already begun to shift their spending from non-Google to Google's ad buying tools. While Google again uses privacy as a pretext, the flimsiness of this rationale is apparent to most observers since Chrome can still use Google cookies or otherwise has access to Google users' data by virtue of automatically signing them in. Because Google's ad buying tools favor its exchange, Google also is entrenching its exchange monopoly through the so-called "Privacy Sandbox."

- 229. Furthermore, Google, with Facebook's help, has imposed Unified Pricing. In 2019, Google prevented publishers from compensating for Google's advantages in price seeking by imposing a higher price floor on Google's AdX by changing its search algorithm to punish publishers that utilized higher price floors: the results were drastic, including one publisher losing half its search traffic in one day. At the same time, Google misled publishers by telling them that it was not manipulating search traffic.
- 230. Rather, in 2019, Google imposed Unified Pricing rules by having its ad server prohibit publishers from setting different price floors for different exchanges and ad buying tools. As a result, the Texas AG Action alleges, "Google's blocking of competition via Unified Price rules has resulted in Google's exchange and buy-side winning an increasing portion of publishers' impressions, even though they pay lower prices." Unified Pricing also prohibits publishers from distinguishing between exchanges and bidders based on non-price criteria such as quality. Google told publishers that abolishing price floors benefited them, but the Texas AG Action cites internal discussions or documents that show that was not Google's true objective. Moreover, a Google memorandum that summarizes a May 2, 2019, meeting between Google and Facebook appeared to cement Google's later decision to prohibit publishers from setting lower price floors for non-Google exchanges, networks, and ad buying tools.
- 231. Google also used its information advantages (such as by having sole access to match unique users with their IDs), Unified Pricing, trading on insider information, and Last Look to advantage its ad buying tools. In addition, starting in 2015, Google forced advertisers to use its

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ad buying tools by cutting off access to YouTube's inventory to those who do not use Google's ad buying tools. YouTube's role as the leading video ad inventory in the United States makes it a "must-have" source of instream video inventory for advertisers. Google did not always have this exclusivity arrangement; instead, Google only began to require this after it noticed in 2013 that its ad buying tool for large advertisers, DV360, was falling behind the competition, and then in 2013 and 2014, strategy decks cited in the Texas AG Action, strategized how to leverage its YouTube inventory to get advertisers to use DV360 and Google Ads. Google's decision, however, overall harmed YouTube's creators by decreasing the pool of buyers for YouTube inventory and decreased their revenue. But it increased Google's revenues because the increase in use of Google Ads and DV360 offset the loss in business in YouTube.

- 232. At a September 15, 2020 Senate hearing regarding antitrust and the ad technology in Google, Google's representative, Donald Harrison ("Harrison"), President, Global Partnerships and Corporate Development, confirmed that Google does not share specific bid information with advertisers and publishers, stating that "publishers aren't generally aware of what the advertisers paid on that side of the equation; advertisers aren't generally aware of what publishers paid on that side of the equation; so it isn't fully disclosed all the way through other than in each case you have contracting parties on both sides that have signed agreements with us that make it clear to them exactly how much that they're paying to us and how much they're paying to themselves." But as Senator Hawley pointed out, because Google "controls the whole stack" there is no transparency on how much Google is making overall.
- 233. Harrison also confirmed that to place an ad on Google Search or on YouTube (in two markets where Google is dominant), an advertiser must buy ads through Google's ad buying tools.

D. Google Anticompetitively Dominates Navigation

234. Google achieved early dominance in navigational services from its tried-and-true strategy of acquiring nascent competitors, flooding the market with cheap or free products, and leveraging its dominance in other areas to leverage preset default status for its own products.

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235. Google Maps began with a string of acquisitions. In 2003, Google Labs launched "Search by Location," but it did not have mapping data. In October 2004, a few months after its IPO, Google acquired Where 2 Technologies, an Australian star-up that created web-based dynamic maps. Google then acquired Keyhole, which used satellite images and aerial photos to create digital-mapping software, and ZipDash, which provided real-time traffic information captured through GPS. With these acquisitions, Google launched Maps in 2005.

One of Google's key acquisitions in navigational services was the only other 236. company with turn-by-turn navigation, Waze, for \$1.3 billion in 2013. Google thus eliminated one of the few independent sources of mapping data from the market. Internal Google documents produced to Congress show that Google was closely tracking Waze's fast growth. One 2012 Google presentation, according to the House Report, noted that Waze was the most downloaded navigation app, and that it saw a 30% increase in daily downloads and averaging around 100,000 downloads per day. Google also focused on how Waze was the only other mapping provider that was completely vertically integrated, spanning the provider, application, map, traffic, and search layers. A May 2013 Google presentation produced to Congress identified several strategic reasons for acquiring Waze, such as obtaining its "highly-engaged community of map contributors and expertise" to "nurture/grow communities," achieving a "scalable solution" for maintaining maps with "real-time incident data," using Waze as a "sandbox" for "test[ing] map/navigational features," and acquiring a "highly-talented team" with "deep experience in maps." A June 2013 presentation also noted that Waze's accuracy and search capabilities were limited, that Waze's financial projections were "highly speculative," and noted that a purchase price of almost \$1 billion would be "expensive for a company with <\$1 million in 2012 revenue." Moreover, around that time, Waze's own CEO viewed it was "the only reasonable competition" to Google Maps.

237. Between Maps and Waze, Google captures more than 80% of the navigational app market. Google Maps, as a standalone product, would be worth \$61.5 billion, according to Barclays.

238. Google also used its tremendous profitability in other areas to subsidize the growth of Google Maps. In 2006, Google introduced Google Maps API, which enabled developers to use and build on top of Google's digital maps. It enticed the adoption of the API by offering a free tier, which incentivized developers to build their apps with Google Maps.

239. Google also built up its independent capabilities through more investments by launching "Ground Truth" in 2008, which included Google Street View Cars, taking pictures of buildings and landscapes around the world, and delivering Google structured data to create digital maps, as well as obtaining mapping information from satellite, aerial images, and public databases. A 2008 Google budget request stated that Ground Truth was to help Google achieve "long term independence from Tele Atlas and Navteq," two sources of mapping data owned by TomTom and Nokia, respectively. Google spent over \$88 million on Ground Truth in a year. But the effort paid off because as early as 2008, Google's internal documents showed that it was "#1 in Maps usage," having already overtaken MapQuest, which was the navigational leader when Google Maps launched in 2005.

240. Google then furthered adoption of Google Maps by offering Google Maps for Mobile for free, which had functions that included turn-by-turn directions, live traffic updates, and automatic rerouting. This was widely seen as disfavoring incumbent navigational services, whose stock prices fell when Google announced its free offering. Google also used its existing dominance in Search to bolster Maps, by pushing search results to Maps. In 2013, Consumer Watchdog wrote to the DOJ Antitrust Division to complain that Google "was able to muscle its way to dominance by unfairly favoring its own service ahead of such competitors as MapQuest in its online search results."

241. Google's era of free products came to an end when it achieved dominance (with at least one estimate that the API captures over 90% of the business-to-business market), and in 2018, Google Maps introduced a "pay-as-you-go" pricing plan for the core mapping APIs. This drastically reduced the number of free Maps API calls a firm could make from 25,000 per day to around 930 per day, and developers stated that this amounts to a price increase of 1,400%. By

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then, developers and businesses were forced to pay these prices because, as one customer told Congress, "There are no viable alternatives." Another developer told Congress that the 2018 price hike "took our bill from \$90/month in October to \$20,000/month in December." It was only able to reduce its bill by enabling a location-retrieval function on users' devices, which gave Google "greater ability to identify and track" the users. Uber publicly disclosed that it relies on Google Maps for "the mapping function that is critical to the functionality" of the Uber platform and that Uber "do[es] not believe that an alternative mapping solution exists that can provide the global functionality that [Uber] require[s.]" From 2016 through 2018, Uber paid Google \$58 million for the use of Google Maps. Another customer notes that there are no alternatives to Google Maps: "Local businesses are most likely to use Google's tools to index their websites because Google controls the search engine space, which has the ability to deliver—or restrict—whether these websites appear in corresponding links in consumer search results." Furthermore, "the data advantages that Google incorporates into its tools will only grow with time, making it impossible for a new player to ever achieve the scale, user base, or database necessary to compete[;]" Google is essentially charging two fees: one in kind through giving Google valuable usage data and one monetarily by paying Google's volume-based fees for API calls.

242. Google has also cemented its dominance in Maps by having it be the default navigational product on Android. Google also advantages Maps through the vast troves of data it collects through Search and Android. Google Maps also had an advantage through its early collection of user data before new data restrictions have come into place, which prevent startups from acquiring the same data advantage. Yet these rules were in part caused by outraged stemming from Google's own actions, such as its mapping through Street View, but by the time the rules were implemented, Google was mostly done with its mapping project. Google earns money from Maps by selling location-based advertisements. According to the House Report, analysts estimate that Google earned \$2.95 billion in revenue from Maps, and that if it were a standalone product, it would be worth more than \$60 billion.

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- 243. Google also cements Maps' dominance through tying. The "Google Maps Platform" offers developers traffic data and places data (also known as place search) and maps data. Google prohibits developers from using any of these tools alongside non-Google mapping features. And in 2020, Google further tamped down on non-Google products by prohibiting developers from using "Google Maps Core Services with *or near* a non-Google Map in a Customer Application." (Emphasis added). This has led several major companies to switch entirely to Google's ecosystem, and driven business away from non-Google providers that provide specialized services that may otherwise be better. And Congress was told by one developer that Google closely tracks and pressures developers who use Google's place data along with mapping data from another source by making them choose either all or no Google. One company describes it as, "It's a bigger player putting a gun to our head saying 'switch or else.""
- 244. Now that Google has achieved dominance in Maps, it is using the product to grow other businesses. For example, Google has used its dominance in mapping to acquire customers for Google Cloud; in 2018, Google required all API calls to use a valid API key, which must be linked to a Google Cloud account. This tying has led Google Cloud to more than triple its income since 2017, the year before Google began tying Google Maps functionality with Google Cloud.
- 245. Google Maps' quality has also worsened since it achieved dominance, with news reporting that there are millions of fake business addresses and names on Google Maps. Rather than remove these fake listings, however, Google has demanded additional payments (through buying ads) with the threat of wiping out their legitimate business. Google also preferences its own products, degrading access to third parties that rely on Google Maps to disfavor them as competitors to Google's other products.

E. Google's Killer Acquisitions Help It Achieve Dominance in Other Areas

246. Google has conducted extensive market intelligence in deceptive ways. This extensive market intelligence has allowed Google to target would be competitors for "killer acquisitions," *i.e.*, to get rid of nascent competitors and instead increase its own dominance. The most notable examples have been described above. In 2005, Google's acquisition of Android

 allowed it to achieve dominance in the mobile operating system market, and it has, in turn, dominated the search and app markets on Android devices. In the same period, Google also began its spree of acquisitions in the digital ad publishing and exchange markets that have made it the dominant player in the digital ad space. And as detailed above, Google has also made key acquisitions that have led to its dominance in the streaming video, navigation, and voice assistant markets, and it is seeking to achieve dominance in healthcare devices through acquisitions. Over 20 years, Google has made more than 260 acquisitions that are known, but there are still other acquisitions that Google has made that have not been reported. According to the House Report, as early as 2006, Google executives recognized that Google should deploy its "tremendous cash resources" to execute its "strategic plan."

247. Google executives, including former CEO Schmidt, are on the public record for espousing a strategy for Google to quickly acquire nascent competitors rather than compete on its own. This was the admitted strategy for Google acquiring YouTube. Google had previously sought to build its own video service, Google Video, but it did not gain much traction. Meanwhile, YouTube was achieving rapid growth. Schmidt admitted in a deposition in another case that he convinced the then Board to approve a purchase price of more than \$1 billion over the apparent valuation of YouTube because of the potential to lock down the video market.

248. Schmidt expounded on this strategy in a recent interview with Reid Hoffman ("Hoffman"), the co-founder of LinkedIn. On the one hand, Schmidt admitted that in his personal choices, he "did not do enough due diligence." Schmidt recounted how, just days after meeting with YouTube's founders, they settled on a price (almost three times an earlier \$600 million valuation, which Schmidt rejected, until he found out he had competition from Yahoo! to potentially buy YouTube), and then the YouTube team was invited to Google's Board meeting, and the Board voted then and there to approve the acquisition. Schmidt then espoused Google's acquisition strategy to Hoffman: "We have plenty of engineers . . . but let's imagine that we have engineers that can build an equivalent product in one year, versus an acquisition that's expensive. And let's say that we can monetize this fairly quickly. So, choice A is 'We're going to build it

ourselves, do it right.' And choice B is, 'Buy that company and do it now.' You always should choose 'do it now."

249. Susan Wojcicki, now YouTube's CEO, confirmed in another interview with Hoffman that buying YouTube was a result of a decision to capitalize on YouTube's growth because Google was not as successful in competing. She recalled that Google Video, a direct competitor to YouTube, launched a few months before YouTube did, but YouTube's growth was so rapid that it eclipsed Video. Google "realized that we were losing. . . . We were failing. . . . I knew it'd be very hard for us to catch up." At the same time, YouTube was looking to be acquired so it could have more capital to invest, and Wojcicki saw that as "just a huge opportunity in terms of future video. . . . We got together and we had a god conversation with Sergey [Brin] and Larry [Page]. I produced a model. I did a model in like 15 minutes to show that this actually had huge potential in the future — not just in views, but in revenue, too." Shortly afterwards, Google proceeded to explore an acquisition.

250. Google also acquired Nest Labs for \$3.2 billion in 2014 to enter the voice assistant and smart speakers market, as well as to eliminate a potential rival. Google then gained a huge share of the home devices market through engaging in predatory pricing, tying, and bundling, often after having engaged in killer acquisitions. Google has used predatory pricing to attempt to build market share in the smart speaker/ voice assistant market. According to a lawsuit by Sonos, the maker of another smart speaker/ voice assistant, it is impossible to compete with Google because Google prices its speakers at below the cost.

251. Furthermore, Google stifles innovation in the home speaker market by barring speakers that carry Google Assistant from carrying another voice assistant. Sonos created such a device, and as their CEO explained at a Congressional hearing: "These companies have gone so far as demanding that we suppress our inventions in order to work with them. The most recent example of this is Google's refusal to allow us to use multiple voice assistants on our product simultaneously." He continued, "I think the whole spirit of trying to encourage small companies, encourage new innovations and new startups is at risk, given how dominant these companies are."

Moreover, Google's choice to stifle concurrency makes it more difficult to switch platforms or to even have other companies' devices within a given home, because of limited or lacking interoperability.

- 252. As a result of Google's anticompetitive practices, Google is in second place in the smart speaker market, with 23.8% of the market. The next two largest smart speaker manufacturers, Apple and Sonos, have only 2.7% and 2.2% of the market. Google is also helped in that voice assistant software is built on cloud computing infrastructure, and Google Assistant can rely on Google Cloud. Furthermore, smart speakers can and have collected tremendous amounts of data to further their own dominance and further the dominance of their other products.
- 253. Google is currently looking to repeat this playbook in healthcare devices. It acquired Fitbit in 2019 for \$2.1 billion. This deal has come under antitrust scrutiny in Europe and the United States.

F. The Officer Defendants Violated Their Fiduciary Duties

- 254. The Officer Defendants have a fiduciary duty to manage the business lawfully, and under Delaware law, they cannot be exculpated for gross negligence or for willful misconduct.
- 255. The Officer Defendants are actively involved in managing the Company. For over a decade, Page, Brin, and Schmidt, in particular, ran Alphabet and Google as a "triumvirate." In Google's 2004 IPO Founders' Letter, Page spelled out this model explicitly: "We run Google as a triumvirate. Sergey and I have worked closely together for the last eight years, five at Google. Eric, our CEO, joined Google three years ago. The three of us run the company collaboratively with Sergey and me as Presidents. The structure is unconventional, but we have worked successfully in this way." Page further noted, "To facilitate timely decisions, Eric, Sergey and I meet daily to update each other on the business and to focus our collaborative thinking on the most important and immediate issues. . . . Eric, Sergey and I run the company without any significant internal conflict, but with healthy debate."
- 256. The triumvirate structure was also reflected in how the three had a majority of Google (and now Alphabet's) voting power: they all hold high-vote class B shares, with Brin's

holdings giving him about 26% of the Company's voting power, Page, 25%, and Schmidt, 5%. Page and Brin together hold a majority of the voting power, and Schmidt's share ensures an even larger majority. As long-term collaborators, Page, Brin, and Schmidt form a control group.

257. In 2011, Page, Brin, and Schmidt revised their triumvirate structure by moving Schmidt to the role of Executive Chairman. By that time, the triumvirate was becoming a gang of four because Pichai, who joined Google in 2004, had increasing leadership responsibilities, first involving Search, then launching Chrome, then assuming leadership of Android, then spearheading the acquisition of Nest, and by 2014, heading all of Google's businesses. At the time, Pichai was known as Page's "interpreter" by translating Page's vision to concrete operations. When the Company reorganized as Alphabet in 2015, Pichai became CEO of Google while Page was CEO of Alphabet. Pichai joined the Board in 2017. In 2019, Pichai became CEO of Alphabet, as well as Google, while Page and Brin remain on the Board. Schmidt also retains significant influence at the Company, because even though he retired from the Company in early 2020, he still retains his high-vote B shares.

258. The public reporting has also demonstrated that the Officer Defendants actively participated in the misconduct. Schmidt has admitted that acquiring nascent competitors was a part of the Company's business strategy, stating that it was a lot faster to acquire than to develop competing products. In 2006, he encouraged the Board to pay YouTube \$1 billion more than its valuation so that Google could incorporate a rapidly rising competitor that had already surpassed Google Video, despite the latter having been launched earlier. And Pichai, according to the government antitrust lawsuits and the House Report, repeatedly pushed for anticompetitive conduct: in 2009, he encouraged promotion of Chrome through Google.com; in 2013, as the then-head of Android, he emphasized how Search was "sacred" and needed to be "protected"; in 2018, he met with CEO Tim Cook at Apple to discuss how the companies could work together, with one Apple employee characterizing their conclusion as how the two companies should work as one; and he also had a high-level role in approving Google's retraction of its earlier promise to keep data sets separate after acquiring DoubleClick. Page and Brin, meanwhile, stepped away from

their management roles in late 2019, with news reports noting widely that they did so just as antitrust scrutiny increased against the Company, which leads to the inference that they were widely involved in antitrust misconduct but wanted to avoid public scrutiny.

- 259. Because of their central roles in managing the Company, it is reasonable to infer that the Officer Defendants knew about, approved, and spearheaded the range of anticompetitive conduct alleged in the House Report and the numerous antitrust suits. The House Report and the lawsuits have all referenced numerous internal communications, presentations, and meetings that involved senior executives, and therefore, likely would have reached the Officer Defendants, as well.
- 260. Moreover, to the extent the Officer Defendants kept themselves ignorant of important anticompetitive decisions, they were grossly negligent in their actions as the top officers of the Company with a fiduciary duty to supervise the Company's operations.
- 261. The Officer Defendants actively discouraged oversight by Board directors, a lesson taught by their long-term executive coach, the late Bill Campbell ("Campbell"). Schmidt reported, in a book about Campbell, that at one point early in Google's history, Shriram asked for more details regarding mounting losses at Google. But Campbell reassured Shriram that he need not be concerned with details because Google had the "right team in place" and was "working on the problem." Shriram was placated and then did not focus on "the problem analytically[,]" but instead focused on "the people on the team and if they could get it done."

G. The Board Fails to Implement a Reporting System for Antitrust Claims

262. The Board was informed of numerous multi-billion dollars fines levied against Google contemporaneously, according to public information in another Google antitrust lawsuit. In addition, the new Board members would also be informed because all Board members review the Form 10-K, which expressly lists out all these fines. For example, the 220 production includes a draft Form 10-K for 2019, which likely would have been reviewed in early 2020 (by which time all current directors have joined the Board), and informs the Board of the numerous multibillion dollar fines that the EC levied against Google for antitrust violations, including conduct that is the

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subject of domestic investigations (and soon, lawsuits): in June 2017, the EC "announced its decision that certain actions taken by Google regarding its display and ranking of shopping search results and ads infringed European competition law. The EC decision imposed a €2.4 billion (\$2.7 billion as of June 27, 2017) fine. . . . We recognized a charge of \$2.7 billion for the fine in the second quarter of 2017." GOOG-BC-SHD-00000358 at 435-36. Moreover, in July 2018, "the EC announced its decision that certain provisions in Google's Android-related distribution agreements infringed European competition law. The EC decision imposed a €4.3 billion (\$5.1 billion as of June 30, 2018) fine and directed the termination of the conduct at issue. . . . [W]e implemented changes to certain of our Android distribution practices. We recognized a charge of \$5.1 billion for the fine in the second quarter of 2018." Id. at 436. Furthermore, in March 2019, "the EC announced its decision that certain contractual provisions in agreements that Google had with AFS [AdSense for search] partners infringed European competition law. The EC decision imposed a fine of €1.5 billion (\$1.7 billion as of March 20, 2019) and directed actions related to AFS agreements, which we implemented prior to the decision. . . . We recognized a charge of \$1.7 billion for the fine in the first quarter of 2019." *Id.* Self-preferencing, advertisements, and Android distribution agreements are also all the subjects of U.S. inquiries.

- 263. The 220 documents show that the Board routinely got updates about antitrust investigations and yet did nothing to improve antitrust compliance oversight, despite ever increasing regulatory problems:
 - A January 30, 2019 Board meeting, attended by all then-directors, includes an update by Walker on "competition" concerns. GOOG-BC-SHD-00000060 at 64.
 - b. A January 30, 2019 Regulatory Strategy update claims that Google is "taking a disciplined and proactive approach to addressing and anticipating regulatory challenges." GOOG-BC-SHD-00001040 at 1041. Management told the Board, "Concerns that Google is disrupting unfairly [redacted] are leading to regulation and legislation to enforce more local accountability." *Id.* But management also

signaled that its response was not to reform its practices but to increase lobbying: the next item after "Concerns" is to inform the Board that Google is "strengthening [its] government affairs capability[.]" Id. Management also stated that it is "continuing to review and improve [Google's] products and practices to anticipate latent regulatory risks." *Id.* Nevertheless, management acknowledged "Competition . . . challenges will continue as top themes in 2019." Id. at 1042. But management is determined to "[d]emonstrate that Google competes fairly across the globe" rather than reform its practices. *Id*. at 1044. Google notes that there are "challenges" concerning competition scrutiny in the E.U., U.S., and the "Rest of [the] World." Id. But what the Company seemed to focus on was "Engagement & Advocacy" and "Product & Business Practices." Id. Nevertheless, Management acknowledged "Possible Regulatory Issues: 3-6-month horizon" to include "Competition." *Id.* at 1052. And it acknowledged "Antitrust" as a Policy concern in the U.S. GOOG-BC-SHD-00001055. But management continued to play off antitrust concerns as mere politics, stating that it was a "multi-party game . . . and competition concerns each pull from the two parties['] policymakers in different directions." Id. at 1057. And management included a chart of "DC Stakeholders." Id. at 1058. Management also focused on a "Deep dive: DC Strategy." *Id.* at 1059.

- c. At an April 2019 Audit Committee meeting, Google's General Counsel Kent Walker provides a "Litigation, Regulatory, Investigations & Incidents" report that informs the Audit Committee: "Multiple jurisdictions [are] undertaking market studies into the regulation of large tech companies (incl. U.S.[).]" GOOG-BC-SHD-00000001 at 003.
- d. At an April 24, 2019 Board meeting (attended by all Board members except for Washington and Arnold, who were not yet on the Board, Mather (the Audit Committee Chair) updated the Board on "litigation, regulatory incidents and

investigations, including . . . competition matters" and Walker also provided a "privileged overview of policy, legal, and regulatory issues, including, among others, an update on . . . antitrust[.]" GOOG-BC-SHD-00000269 at 270, 272.

- e. An April 24, 2019 Board update focused largely on competitive pressures. GOOG-BC-SHD-00001060. It discusses concerns with how Microsoft's default placement of its own browsers is making it difficult for Google to grow Chrome and therefore maintain its lead in Search, noting "We're also facing external headwinds [w]ith increasing pressure from Microsoft" because it is "Hard to change defaults in Win10: Excessive steps required to change default search engine and browser; OS has built-in marketing to keep users in defaults" and "Search on IE [Internet Explorer] and Edge is much lower: Nearly 70% of Search queries and 60% of Search users on desktop today are from Chrome. In comparison about 10% of queries and 13% of Search users on desktop are from IE or Edge." *Id.* at 1082. The Board learned that Google expected declines in revenue, owing to Windows 10's preferences of Microsoft's own products, of \$1.3 billion in 2016, \$2.5 billion in 2017, \$3.3 billion in 2018, and \$4.1 billion in 2019. *Id.*
- f. An undated 2019 update states that there is a "shifting focus from EU antitrust efforts to national inquiries[.]" GOOG-BC-SHD-00001107. "Antitrust" is one such "Key Regulatory Update[]" but the focus was on "[n]ext [s]teps." *Id*. at 1108.
- g. A Q2 2019 Product Update delivered to either the Board or the Audit Committee notes that "Local Search continues to face antitrust scrutiny in certain jurisdictions" and that "Android may be the focus of a US DOJ investigation." GOOG-BC-SHD-00000012 at 15, 20.
- h. At a July 3, 2019 Special Meeting of the Board, attended by all current directors (except Arnold, who was not yet on the Board), "Mr. Pichai provided an update

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to the Board on certain antitrust matters. Ms. Hall provided additional commentary. The Board members asked questions, to which Mr. Pichai responded." GOOG-BC-SHD-00000088 at 89.

- A Litigation, Regulatory, Investigations & Incidents update delivered to the Audit Committee by Walker on July 23, 2019, informed it of a "DOJ Manopolization [sic] Investigation." GOOG-BC-SHD-00000023 at 24.
- j. A July 24, 2019 presentation by Ernst & Young ("E&Y") to the Audit Committee or the Board informs it of "2019 activities" that include "U.S. Justice Department antitrust investigations[.]" GOOG-BC-SHD-00000033 at 35.
- k. At a July 24, 2019 Board meeting, Walker provided "an update on . . . antitrust[.]" GOOG-BC-SHD-00000309 at 313.
 - A September 25, 2019 Audit Committee agenda indicates that it is scheduled to discuss "Antitrust & Competition" for a mere 10 minutes. In an accompanying presentation, the Audit Committee finds out that "The Department of Justice (DOJ), 48 State attorneys General, and the House Judiciary Committee (HJC) have opened wide-ranging competitions into our business practices in recent months." GOOG-BC-SHD-00000083 at 84. The presentation continues, "We Face Increasing U.S. Competition Scrutiny," and that the "DOJ Investigation" includes "Attorney General Oversight." *Id.* at 86. The Board was warned of the Company's "Potential Exposure" and of the "Contagion: We already have investigations into our [redacted] practices. . . . The US investigations will likely prompt additional scrutiny in other jurisdictions." *Id.* at 87. At the same time, management sought to downplay the concerns, stating "We have consistently reviewed and counseled on the company's business and product practices over the last 12 years. Many of the practices under review have already been examined by the FTC, the DOJ or other agencies around the world

without a finding of liability." *Id.* Yet the Board did not appear to question management on this representation, especially in light of how by this time frame, Google was already subject to several multi-billion-dollar fines in the European Union on similar antitrust concerns (for example, over anticompetitive conduct in Android devices), and the multitude of investigations – as the Board found out, the DOJ Investigation was being overseen by the Attorney General rather than by a division head or staff, and "48 State Attorney Generals + DC & Puerto Rico" – virtually every state in the Union and then some – were investigating these claims.

- m. The September 25, 2019 Audit Committee meeting minutes includes an update by "Mathew Bye, Director, Competition" and the minutes confer that management sought to blame the antitrust inquiries on politics: "Mr. Bye began by providing an executive summary of various antitrust and competition matters, including developments in the United States, recent successes, major cases on appeal, pending decisions, and other risks, among other matters. Mr. Walker then discussed the overall landscape and political environment and other international matters." GOOG-BC-SHD-00000305 at 307.
- n. At an October 1, 2019 Special Board meeting, "Mr. Walker provided a privileged update on the investigation by the U.S. Department of Justice. Mr. Pichai provided additional commentary." GOOG-BC-SHD-00000317 at 319. Then-recently-appointed-director Washington did not attend the meeting.
- o. An October 16, 2019 Product Update to the Board again warned, "Android may be the focus of a US DOJ Investigation." GOOG-BC-SHD-00000277 at 285.
- p. An October 23, 2019 Audit Committee meeting highlights: "The US DOJ and 50 states and territory attorneys general are conducting investigations into various aspects of our businesses, while Congress holds various hearings into competition in the tech sector." GOOG-BC-SHD-00000288 at 289. Moreover,

the Audit Committee reviewed a presentation from a meeting a month earlier that warned: "We face increasing US competition scrutiny. The DOJ, 48 State Attorneys General and the House Judiciary Committee have launched wideranging competition investigations into our business practices in recent months." *Id.* at 294. Startlingly, management sought to downplay these widespread and increasing government investigations as merely a product of politics by claiming: "We have consistently reviewed and counseled on the company's ad tech and display practices over the last decade and many of these practices have already been examined by agencies around the world without a finding of liability, but may be complicated by the 2020 election." *Id.* But this claim neglects to address the vast majority of the issues that were being investigated, such as Google's dominance in Search or Android. Meanwhile, another October 23, 2019 Audit Committee litigation update includes an update by Walker that reinforces that "US DOJ, Attorneys General, and Congress initiate[d] competition inquiries." GOOG-BC-SHD-00000295 at 296.

At an October 23, 2019 Board meeting, Walker provided "an update in the United States on . . . antitrust[.]" GOOG-BC-SHD-00000465 at 468. In an accompanying presentation, the Board was informed that "DOJ and state antitrust actions proceeding (with political dimensions)." GOOG-BC-SHD-00001109 at 1110. Furthermore, the Board was told about "Multiple Fronts" in U.S. antitrust inquiries, including the DOJ, State AGs, Congress, "2020 Dem. Campaigns" and the media – thus making it appear the inquiries were political. *Id.* at 1111. The Board was informed that the "DOJ Investigation" had "Attorney General oversight," and that the House "Investigations" also included how "Apple, Amazon & Facebook [are] also under scrutiny." *Id.* at 1118. The Board was informed that the FTC may issue new tech related

- guidelines, that "48 State Attorneys General + DC & Puerto Rico" were conducting investigations. *Id*.
- r. A January 22, 2020 Board product update shows that antitrust concerns continued, with the Board being informed that "Android may be focus of US DOJ investigation." GOOD-BC-SHD-00000454 at 460.
- s. A January 29, 2020 Audit Committee meeting included an update on "our continued response to the broad-sweeping . . . and US DOJ, AG and Congressional inquiries re: Competition[.]" GOOG-BC-SHD-00000578 at 581. In another January 29, 2020 Audit Committee update, the Audit Committee was told about a "New US competition lawsuit re: advertising" and "Competition inquiries by US DOJ, State Attorneys General, and Congressional [sic] continue, covering multiple products and services[.]" GOOG-BC-SHD-00000596 at 597. And in a January 29, 2020, presentation by E&Y, it also alerted the Audit Committee to "Anti-trust inquiries and investigations" in "various other jurisdictions" and "Other anti-trust investigations by other regulators." GOOG-BC-SHD-00000608 at 624. Furthermore, in another January 29, 2020 Audit Committee update, "Alphabet 2020 Top Risks" included "Increasing regulatory scrutiny" in, among other things, "Antitrust / Competition" that would be a topic for discussion for the Board in June. GOOG-BC-SHD-00000604 at 606-07.
- t. Despite the numerous warnings about increased antitrust inquiries, the Audit Committee and the Board did not seek to increase their oversight, and sought to exercise less oversight. Also, at the January 29, 2020 Audit Committee meeting, the Audit Committee was told of a new model for compliance reporting where the chief compliance officer would oversee "Compliance in Global Affairs e.g., . . . competition" and would, in turn, report to the chief legal officer or general counsel. GOOG-BC-SHD-00000590 at 592 (emphasis

in original). But the "new model" does not show the Board being involved in antitrust oversight, even though the Audit Committee and the Board had over the last year been informed of increasing antitrust scrutiny, and knew about the billions of dollars in fines that Google was already charged with in the European Union for conduct that was now being examined domestically.

- u. In the January 29, 2020 Audit Committee meeting minutes included a discussion of "the broad and evolving set of strategic, regulatory and operational risks faced by the Ads business." GOOG-BC-SHD-00000691 at 694. Walker then provided an update on "significant . . . regulatory matters." *Id.* at 697.
- v. At the April 22, 2020 Audit Committee meeting, it was updated about "our continued response to the broad-sweeping Global and US DOJ, AG and Congressional inquiries re: competition[.]" GOOG-BC-SHD-00000660 at 661. And in another April 22, 2020, update, the Audit Committee was told about "Competition inquiries by US DOJ, State Attorneys General, and Congress continue, covering multiple products and services[.]" GOOG-BC-SHD-00000664 at 665.
- w. By this time, antitrust inquiries had mushroomed to the point where the Audit Committee received a presentation, dated April 22, 2020, that was devoted to antitrust. The update included "Developments in the United States: the US Department of Justice, 48 State Attorneys General, and the House Judiciary Committee (with a range of motivations) continue their wide-ranging competition investigations into our business practices" as well as "Developments in Europe and Australia[.]" GOOG-BC-SHD-00000677 at 678. The Audit Committee was told that the House Judiciary Committee would likely issue a report in 2020, and "DOJ & State AGs" would file a lawsuit on "Ad tech +?" estimated to be filed in the third quarter. *Id.* at 679. The Audit Committee was also told that "Sundar was asked to testify in May" by Congress. *Id.* at 680. But instead of providing oversight, the presentation appeared to be management's attempt to spin the matters to the Audit

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Committee. While most of the substantive discussions are redacted for privilege, one slide discussed "Alternative Framings for US Competition Suits." *Id.* at 681. Moreover, the Audit Committee was informed extensively of Google's strategy, as well as "Critics' Goals[.]" *Id.* at 685.

- x. Perhaps recognizing that its attempt to completely remove itself from antitrust oversight was untenable, also on April 22, 2020, the Audit Committee was informed of a "more streamlined and elevated central compliance organization structure" as a "2d line of defense" that "went into effect on March 30th." GOOG-BC-SHD-00000672 at 673 (emphasis in original). This new structure had the chief compliance officer report to both the SVP of Global Affairs and to the Audit Committee regarding concerns that included competition. *Id.* at 674. However, the Audit Committee still relied on a single executive contact to tell it of the key information it would need to know about antitrust.
 - On April 22, 2020, the Board was provided with a similar update on "Key Global Regulatory Issues," including a "Deep Dive" on "Pending Competition Actions in the United States" - "The US Department of Justice, 48 State Attorneys General (led by Texas), and the House Judiciary Committee are conducting broad investigations into our business. Lawsuits this summer may allege competition violations[.]" GOOG-BC-SHD-00000711 at 712. In a further update of the "US Competition Investigations - Overview" the Board was told "CEOs asked to testify; status of hearing uncertain" and "Tech Report' expected Q2" from the House Judiciary Committee. *Id.* at 713. At the same time, however, rather than present the various inquiries as serious regulatory problems, management presented these as public relations problems to be spun away. Next to "status" updates of the House, AG, and DOJ inquiries, the Board was told of the Company's "Campaign Strategy." Id. And a pagelong redacted discussion of the domestic antitrust suits focused on "Alternative Framings." Id. at 714. The Board was also informed of "Our Strategy" regarding "Likely New Competition Rules for Tech" as well as "Critics' Goals." *Id.* at 722. The Board was also told to expect a DOJ and State AGs lawsuit and a House Judiciary report in 2020. *Id.* at 721.

- z. The April 22, 2020 Board meeting included an update by Walker regarding "U.S. antitrust investigations and inquiries likely to play out over the course of FY 2020." GOOG-BC-SHD-00000727 at 730.
- aa. A July 15, 2020 Regulatory and Policy Update to the Board briefly references Pichai's testimony in Congress as one of several "Very public legal and policy moments" and "Competition: US Cases." GOOG-BC-SHD-00000809 at 810, 813. But the Board appeared to be more concerned about Google's profits, as an "Ads Monetization Update" to the Board on the same date informed of it "accelerating potential longer-term trends" and "[t]ailwinds." GOOG-BC-SHD-00000815 at 834.
- bb. The July 15 2020 Board meeting, attended by all the directors, included an update by the Audit Committee regarding "certain antitrust matters." GOOG-BC-SHD-00000996 at 997. Furthermore, Walker updated the Board "on ongoing antitrust matters and legislative trends[.]" *Id.* at 1000.
- cc. A July 15, 2020 Audit Committee update informed it of "our continued response to the broad-sweeping regulatory inquiries re: competition, including upcoming CEO Congressional testimony." GOOG-BC-SHD-00000846 at 848. And in another Audit Committee update of July 15, 2020, Walker informs it that "Competition inquiries by US DOJ, State AGs and Congress continue: DOJ expands to [redacted]; upcoming CEO testimony[.]" GOOG-BC-SHD-00000850 at 851.
- dd. At a compliance update to the Audit Committee on July 27, 2020, Walker and other management discussed the company's "compliance organization and processes" where the chief compliance officer would report up to the Audit Committee. GOOG-BC-SHD-00000858 at 859, 861. But, as indicated before, the reporting process funneled all information through one executive up to the Audit Committee, robbing it of direct board-level oversight.
- ee. A July 27, 2020 E&Y presentation to the Audit Committee also noted "Increasing regulatory scrutiny, specifically in competition . . . areas where there is limited historical precedence for fines and any required changes to business practices[.]" GOOG-BC-SHD-00000888 at 905.

ff. But the Board continued to merely listen to a management committed to fighting the lawsuits. For example, the Board received a copy of Walker's blog post in response to the DOJ's suit filed in October 2020, which characterizes the lawsuit as "A deeply flawed lawsuit that would do nothing to help consumers." GOOG-BC-SHD-00000917.

At an October 21, 2020 Audit Committee update, it was informed of "our gg. continued response to the broad . . . US DOJ, AG, and Congressional inquiries re: competition." GOOG-BC-SHD-000000932 at 935. Moreover, in an October 21, 2020 Audit Committee Reputational and Policy Risk Update, the Audit Committee was told that in the "Government Affairs & Public Policy Risk Landscape," there were "Concerns around the (geo)power of tech companies over markets, but also over society at large" in "Competition and antitrust issues." GOOG-BC-SHD-00000940 at 942, 943. And Walker promised in an October 21, 2020 Compliance update to the Audit Committee that the "2021 Risk Review" would include a "Deep dive into top risk areas raised in Annual Risk Assessment," including "Competition[.]" GOOG-BC-SHD-000000946 at 948, 949. In another update on October 21, 2020, Walker informed the Audit Committee of "Competition inquiries by US DOJ, State AGs and Congress continue with Sundar testimony; DOJ suit imminent" and "New US antitrust lawsuit filed by Epic [Games] (Play Billing), and related class action lawsuits." GOOD-BC-SHD-00000953 at 954 (emphasis in original). And E&Y also warned the Audit Committee that "Focus Areas" include "ongoing . . . competition[] . . . matters." GOOG-BC-SHD-00000961 at 962.

- hh. The Board received a regulatory update on October 21, 2020, which included a discussion of the antitrust actions. GOOG-BC-SHD-00001019 at 1021-24. The discussion (mostly redacted) appeared to focus on the DOJ and State AGs' "investigations" and the House Report's "Legislative Proposals." *Id.* at 1022. Management focused the Board on Google's "Strategy" in response to the government investigations and suits. *Id.* at 1024.
 - ii. In the October 21, 2020 Board meeting minutes, attended by all the directors,Mather provided a report of the Audit Committee that "includ[ed] an overview

of the recent antitrust lawsuit[.]" GOOG-BC-SHD-00001119 at 1120. Furthermore, Walker "provided a privileged overview of the lawsuit by the U.S. Department of Justice and eleven State Attorneys General, including an overview of the complaint, legal assessment, likely timeline and next steps." *Id.* at 1124.

- 264. Yet, despite knowing about the numerous antitrust concerns, the Board did nothing to further investigate or to remedy the antitrust violations. Instead, the Board believed management's representations concerning the antitrust suits, which downplayed their impact.
- 265. The Board also never took any steps to design an antitrust compliance system, despite widespread reporting of antitrust investigations. This is although antitrust compliance is mission critical to the Company because antitrust violations could lead to significant business harm, including divestitures of now critical components of the business, such as YouTube or the ad platforms or Android. Yet, despite the mission critical nature of antitrust, the 220 documents show no evidence that the Board conducted *direct* oversight. Instead, the 220 documents show that the Board relied solely on management.
- 266. Public reporting confirms this perception. In the numerous litigations and investigations, many executive-level presentations and meetings are described in detail. Yet, few of these presentations appear to have reached the Board, and what presentations did reach the Board were from many years ago. Thus, rather than improve its antitrust oversight, it appears the Board took the opposite approach and attempted to exercise less oversight.

H. Alphabet Suffers Ongoing Damages from Defendants' Misconduct

- 267. The Individual Defendants, by directing or condoning Google's anticompetitive conduct in violation of the antitrust laws, caused enormous and ongoing damages to the Company.
- 268. Alphabet and Google have suffered reputational harm that is difficult to value. In addition, they could be liable for billions of dollars in damages when the antitrust actions conclude. In any event, the ongoing litigation costs millions of dollars to defend and disrupt the business through document requests, witness interviews, and depositions.

269. In addition to the government litigation, Google also faces numerous private antitrust lawsuits. These lawsuits have become so numerous that many lawsuits relating to advertising and the Google Play Store have been consolidated into MDLs in California and New York.

- 270. Furthermore, Google continues to face Congressional scrutiny through hearings and legislative proposals.
- 271. Because of the ongoing lawsuits and regulatory scrutiny, the damages are ongoing and continue to the present day.

VI. DERIVATIVE AND DEMAND FUTILITY ALLEGATIONS

- 272. Plaintiff brings this action derivatively in the right of, and for the benefit of, Alphabet to redress the breaches of fiduciary duty and other violations of law committed by the Individual Defendants, as alleged herein.
- 273. Plaintiff is a current stockholder of Alphabet and has continuously held Alphabet stock for the duration of the Relevant Period, and will continue to hold Company stock through the resolution of this Action.
- 274. Plaintiff will adequately and fairly represent the interests of Alphabet and other Alphabet stockholders in enforcing and prosecuting Alphabet's rights, and Plaintiff has retained counsel experienced in prosecuting this type of derivative action.
- 275. Plaintiff has not made a demand because doing so would be futile for two reasons: (1) the current directors all face a substantial likelihood of personal liability for condoning antitrust violations; and (2) the current directors cannot assess a claim independently and disinterestedly because of their business ties with one another and the material impact Board compensation has on their income.
- 276. Demand is futile as to the Board because all the current directors face a substantial likelihood of personal liability for condoning illegal anticompetitive practices, including through their refusal to conduct direct oversight even as they were made aware of increasing regulatory scrutiny around the world. Furthermore, a majority of the current directors were on the Board

when they made key acquisitions (Page, Brin, Shriram, Doerr, Hennessy, and Mather) and received reports about billions of dollars in fines from the European Union (Page, Brin, Shriram, Doerr, Hennessy, Mather, Pichai, and Ferguson), thus illustrating the need for more direct Board oversight. All the current directors were on the Board by the time the government actions were filed.

- 277. Page and Brin are the co-founders of Google, and for the vast majority of the Relevant Period, were officers of the Company, and as explained above, face liability for their actions in condoning, directing, and participating in anticompetitive conduct. They, therefore, cannot assess litigation demands against themselves disinterestedly.
- 278. In addition, a majority of the Board lacks independence from Page and Brin because of their business relationships, compensation from their directorships, and long association with the two. In particular, Page and Brin together control who sit on the Board, because they together have a majority of the Company stockholders' voting power. Therefore, they can elect or un-elect any director that they choose.
- 279. Hennessy, Doerr, and Shriram cannot independently assess a litigation demand against Page and Brin because of their longstanding business relationships with them. Arnold and Washington are not independent because their Board stipends form a material part of their income. And Pichai, in addition to his own liability exposure, cannot be independent of Page and Brin because he is an employee who serves at their and the Board's pleasure.
- 280. Shriram was one of four initial angel investors in Google, and a founding director of the Board. During Google's earliest days, he held weekly meetings with Page and Brin, helped incorporate the Company, and assisted with a licensing agreement with Stanford regarding the search algorithm Google was based on. His close friendship with Page and Brin is also evident in how he jointly licenses the use of Moffett Airfield with them (along with Schmidt). Due to his early investment in Google, he has made hundreds of millions or billions of dollars. Shriram also has extensive ties to Stanford, where Page and Brin had their start, having served as a member of Stanford's Board of Directors since 2009. Institutional proxy advisor ISS also views Shriram as

being too tightly connected with the Company and its founders to be an independent director. His monetary gains from his investments and his mentorship of Page and Brin make him unable to independently assess a litigation demand against either.

281. Doerr is also one of the earliest investors in Google, and along with Page, Brin, and Schmidt, holds high-vote Class B shares. Doerr, as the then-head of Kleiner Perkins, was the one who recruited Schmidt to be the CEO of Google. Doerr was also instrumental in securing the advice of Bill Campbell, who, as noted above, discouraged Board oversight, and encouraged trust in the "right team." Thus, he has long served as a mentor for Page and Brin. Furthermore, Kleiner Perkins has numerous investments with Google or affiliated entities controlled by Page and Brin, including approximately \$40 million in the last year or so alone, according to Alphabet's latest annual meeting proxy. When he initially invested with Google, he was astounded that Page thought Google would have \$10 billion in revenue – he did not even think \$10 billion in market cap was a realistic estimate. Today, Google makes over \$100 billion in revenue and Alphabet's market cap is over \$1 trillion. Doerr has personally made hundreds of millions or billions of dollars from his investment in Google. ISS also views Doerr as not being independent. As a result of his long-term mentorship and monetary gains from his investment, he would not be able to independently assess a litigation demand against Page or Brin.

282. Hennessy was Page and Brin's mentor at Stanford, and afterwards, as the long-time President of Stanford from 2000 to 2016, benefited immensely from Stanford's association with Google and its founders. He was appointed to Google's Board shortly before the IPO in 2004 and was heavily recruited by Doerr. Hennessy also invested in Kleiner Perkins personally. Furthermore, before the IPO, Hennessy was granted 65,000 options to buy Google stock at \$20 per option. Hennessy also received more than 10,000 Google shares as part of his Kleiner Perkins investment. Hennessy has personally made more than \$8 million through sales of Google stock. As an academic, these millions of dollars are likely material to Hennessy's personal wealth. Furthermore, as Stanford's president, he benefits from the benefits Google and Alphabet confer on the university, since his role as Stanford's president would involve fundraising. Google donates

approximately \$38 million to the university annually. Furthermore, during the IPO, Stanford received shares of Google (and continues to receive annual licensing fees) that the university has since sold for \$336 million. As a result of his mentorship of Page and Brin, the money that they have directed via Google to Stanford that bolsters Hennessy's professional standing, and the personal wealth he has created through his holdings in Google stock, Hennessy would not be able to independently assess a litigation demand against Page and Brin.

283. Furthermore, Arnold is not independent because her directorship contributes materially to her income. Upon joining the Board, she was granted a \$1,000,000 stock award. This is likely to constitute the majority of her yearly income because her regular job is a professor at the California Institute of Technology ("Caltech"). According to Glassdoor.com, professor salaries at Caltech range between \$173,030-\$338,974. Even if Arnold earns at the high end of that range, her stock award in 2019 alone would be three times her salary. And her regular stock award of \$350,000 per year would exceed her regular salary.

284. Similarly, Washington is not independent because her Board stipend would be a material part of her income. Since she retired as CFO of Gilead Sciences, she has devoted her time to serving on several boards. Her latest Alphabet Board earnings were \$427,320 in a year. By comparison, Washington's other annual earnings from other boards are: \$414,829 from Salesforce.com, \$369,230 at Honeywell International Inc., and \$254,999 at Vertiv Holdings Co. Thus, her Alphabet Board earnings constitute almost one third of her annual earnings and are therefore material. Furthermore, upon her appointment to the Board in 2019, she received a \$1,000,000 stock award; her compensation at Gilead was approximately \$6.3 million in 2019, and therefore, her initial grant at Alphabet would have constituted more than 10% of her annual earnings that year and are therefore material to her.

285. Pichai cannot independently assess a litigation demand against Page and Brin because he owes his entire career at Google to them. Pichai, unlike many other CEOs, does not have an employment agreement. Instead, like virtually all Google and Alphabet employees, he is an employee at-will. Thus, his position depends on being in the good graces of the Board as a

whole, and especially the two founders who together can elect or un-elect the entire Board through their majority control of the stockholders' voting power. Furthermore, Pichai was rapidly promoted largely owing to his rapport with Page, and his promotion to CEO of Alphabet is owed to Page and Brin making the decision for Pichai to step up and for them to step aside from daily management. Furthermore, due to his status as a senior executive at Google and Alphabet, Pichai is personally implicated in antitrust misconduct, so he would not accuse Page and Brin of antitrust violations because those accusations would also implicate him. Therefore, Pichai is unable to independently assess a litigation demand against Page and Brin.

VII. FIRST CLAIM FOR RELIEF

Breach of Fiduciary Duty Asserted by Plaintiff on Behalf of the Company Against the Officer Defendants

- 286. Plaintiff repeats each and every allegation contained in the paragraphs above and incorporates such allegations by reference herein.
- 287. The Officer Defendants each owe (and owed) Alphabet and its stockholders fiduciary duties of loyalty, good faith, candor, trust, and due care in managing the Company's affairs.
- 288. As detailed above, the Officer Defendants breached their fiduciary duties by directing, condoning, participating in, or failing to conduct oversight regarding anticompetitive conduct that violates mission-critical antitrust laws that could be imputed to Alphabet.
- 289. As a direct and proximate result of the Officer Defendants' breaches of their fiduciary duties, Alphabet has been damaged monetarily and through incurring reputational harm.
- 290. The Officer Defendants are therefore liable to Alphabet for the damages Alphabet sustained.

VIII. SECOND CLAIM FOR RELIEF

Breach of Fiduciary Duty Asserted by Plaintiff on Behalf of the Company Against the Director Defendants

- 291. Plaintiff repeats each and every allegation contained in the paragraphs above and incorporates such allegations by reference herein.
- 292. The Director Defendants each owe (and owed) Alphabet and its stockholders fiduciary duties of loyalty, good faith, candor, trust, and due care in managing the Company's affairs.
- 293. As detailed above, the Director Defendants breached their fiduciary duties by failing to conduct oversight regarding mission-critical antitrust issues despite knowing about regulatory actions and multi-billion-dollar fines levied against the Company for antitrust violations.
- 294. As a direct and proximate result of the Director Defendants' breaches of their fiduciary duties, Alphabet has been damaged monetarily and through incurring reputational harm.
- 295. The Director Defendants are therefore liable to Alphabet for the damages Alphabet sustained.

IX. PRAYER FOR RELIEF

WHEREFORE, Plaintiff, on behalf of the Company, derivatively, seeks judgment against the Defendants as follows:

- A. Declaring that Plaintiff may maintain this derivative action on behalf of Alphabet and that Plaintiff is a proper and adequate representative of the Company;
- B. Declaring that the Individual Defendants have breached their fiduciary duties to Alphabet;
- C. Determining and awarding to Alphabet the damages sustained by it, as a result of the breaches of fiduciary duty set forth above from each of the Individual Defendants, jointly and severally;

1	D. Awarding to Alphabet restitution from the Individual Defendants and ordering		
2	disgorgement of all improperly attained profits, benefits, and other compensation obtained by		
3	them;		
4	E. Directing Alphabet to take all necessary actions to reform and improve its corporate		
5	governance and internal procedures, to enable the Company to comply with the Company's		
6	existing governance obligations and all applicable laws, and to protect the Company and its		
7	stockholders from recurrence of the damaging events described herein;		
8	F. Awarding to Plaintiff the costs and disbursements of the Action, including		
9	reasonable attorneys' fees, accountants' and experts' fees, costs, and expenses;		
10	G.	Awarding pre- and post-judgment	interest; and
11	Н.	Granting such other and further rel	lief as the Court deems just and equitable.
12	X. JURY DEMAND		
13	Plaintiff hereby demands a jury trial on all claims so triable.		
14	Dated: December 3, 2021 Respectfully Submitted,		
15		SCO	OTT+SCOTT ATTORNEYS AT LAW LLP
16		·	Alex M. Outwater
17			x M. Outwater (CA Bar. No. 259062) W. Broadway, Suite 3300
18		San	Diego, CA 92101 phone: 619-233-4565
19			water@scott-scott.com
20			OTT+SCOTT ATTORNEYS AT LAW LLP
21			ffrey M. Johnson (<i>pro hac vice forthcoming</i>) 34 Cedar Road, Suite 12
22			reland Heights, OH 44106 phone: 216-229-6088
23			nson@scott-scott.com
24			
25			
26			
27			
28			

SCOTT+SCOTT ATTORNEYS AT LAW LLI
Donald A. Broggi (pro hac vice forthcoming)
Scott R. Jacobsen (pro hac vice forthcoming) Jing-Li Yu (pro hac vice forthcoming)
The Helmsley Building
230 Park Avenue, 17th Floor
New York, NY 10169 Telephone: 212-223-6444
dbroggi@scott-scott.com
sjacobsen@scott-scott.com
jyu@scott-scott.com
Attorneys for Plaintiff
BONI, ZACK & SNYDER LLC
Michael J. Boni (admitted N.D. Cal.) Joshua D. Snyder (pro hac vice forthcoming)
15 St. Asaphs Road
Bala Cynwyd, PA 19004
Telephone: 610-822-0203
mboni@bonizack.com jsnyder@bonizack.com
John der Comzaek. Com
Additional Attorneys for Plaintiff